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COMPARATIVE ECONOMIC HISTORY

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1955

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Industrial Investment Decisions: A Comparative Analysis *

I

IN PRESENTING this paper to an audience of historians I find myself in a painfully ambiguous position. I am not qualified to talk to you as a historian; therefore what I am going to say will lack the richness of empirical detail that usually characterizes historical papers. On the other hand, in order to qualify as "comparative analysis" this paper ought to have a firm theoretical foundation for its analysis, and accepted standards of reference for its comparisons. Unfortunately, the development economists are still at the beginning of their difficult attempts to isolate the factors that make for economic development, and the complex interaction of these factors has so far eluded systematic analysis and presentation.

My purpose in pointing to this unsatisfactory state of affairs is apologetic rather than critical. Evidently this paper cannot fully live up to what the title seems to promise. It will now be also understood why I shall raise issues when I might have been expected to present conclusions. I honestly feel that the best I can do is to discuss certain hypotheses regarding the factors that influence industrial-investment decisions in developing countries; to present some observations that seem to bear witness to the plausibility of these assumptions; and to arouse the interest of historians in continued discussion and in the kind of search for further historical evidence that I am unfortunately unable to provide to the desirable extent.

What kind of historical research appears to hold most promise from

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a developmental angle? There is hardly a volume on economic development that does not relate the experience of Western industrialization. However, few authors openly suggest that developing countries today need to duplicate that earlier course. Yet the implication lingers that this historical experience is relevant.

On the other hand, one might well favor the presumption that future developments are likely to differ from the past. A fundamental change of policies, methods, and pace has taken place. Except in periods of national emergency, Western industrialization was largely left to proceed in an unhurried manner, free from planning or direction from above. This is not the typical course today. Developing countries now want to move fast to keep up, perhaps even catch up, with those more advanced. This attitude is reflected in a policy of deliberate acceleration of economic growth. Under such pressure, with planning as an instrument of policy, and public investment as an instrument of implementation, one might expect that the relative weight of development measures, probably the very sequence of events, will significantly diverge from past patterns.

Why, then, seek enlightenment in history? There are some lessons to be learned from historical comparison. Even though one suspects that over-all "stages" and "patterns" cannot be as easily determined or generalized as we have sometimes fondly hoped, there are some fundamental relationships that can serve as a safe point of departure.

One of the most important growth relationships is that which links an increase of output with a rise of investment or an increase of productivity, or both. The flow of investment, domestic and foreign, has therefore become the focus of a significant part of our development literature. It also constitutes the topic of this paper. A great deal of discussion has proceeded on a general level. A high propensity to invest in Western countries was associated with "rationality," with social, religious, or other cultural traits, and thereby, it seemed, moved beyond the boundaries of economic argument. Whether intended or not, this approach seems to imply that non-Western people lack the prerequisites for massive investment, unless and until they somehow acquire similar characteristics.

I cannot help sensing something faintly sanctimonious in the presumption that "rationality" goes with our Western attitudes, while less advanced people mostly obey tradition and sentiment. I would certainly not deny the strength of such noneconomic factors. Yet, as an economist I refuse to believe that, in less developed countries, busi-

nessmen who prove to have a very shrewd perception of profit opportunities, are swayed by noneconomic factors to quite the extent that has come to be accepted by many economists and historians. Could it be that we misinterpret their motives?

In order to experiment in this direction I am proposing a slight change of approach. I shall assume that investment preferences, including those termed "traditional," are rational and can therefore be explained in terms of the two chief considerations that enter into all investment decisions: profit and risk. Undoubtedly there are other factors, but I should prefer to assign them a residual role; in other words, I would first search for economic motivations of investment behavior before I concede that the limits of economic analysis have been reached, as they eventually must be.

This slight, and by no means revolutionary, change of emphasis makes for a more detailed scrutiny of the component elements of investment decisions. We have first to determine the individual factors a businessman wants to explore. Then only can we comprehend why the economic conditions in underdeveloped countries make for decisions that frequently seem undesirable from the developmental point of view. The method of comparison, historical, institutional, and perhaps also sociocultural, becomes again meaningful if we thus attempt to dissect the process of decision-making. While it is difficult to understand, describe, and compare general patterns, it is feasible to deal in this manner with concrete factors and magnitudes, and hence with the considerations and expectations to which they give rise in the prospective investor's mind. The present paper is an attempt to apply this method, first generally, and then specifically to industrial investment in the subcontinent of India and Pakistan. It is hoped that the discussants will be willing to bring their varied experiences in other regions to bear on this problem.

II

The literature on economic development is replete with references to lack of entrepreneurial initiative in underdeveloped countries. Individuals and institutions alike, observers say, prefer traditional activities to new ventures. Since industry is, by definition, rather new in these countries, the preferences run strongly to commerce, real estate, and money transactions. These activities, it is argued, are not "productive" like industry. Moreover, speculative types of transactions, for

example, in real estate or commodities, are usually favored over "solid" long-term enterprise, like manufacturing.

These observers perhaps describe the symptoms of the trouble correctly, but their diagnosis is erroneous. True, businessmen in underdeveloped countries are not sufficiently guided by growth considerations in their investment decisions. It is, however, hardly constructive to assume that they are blind or act irrationally. On the contrary, they are shrewd followers of the profit motive. The relevant question therefore appears to be: Why do these businessmen consider it more profitable to invest in the so-called traditional pursuits, in preference to industry? What are the factors that shape their investment preferences? How could these preferences be made to conform to the investment requirements of growing economies?

The last item deserves scrutiny before we enter into the analysis of prevailing entrepreneurial motivations. We might first inquire what the role of entrepreneurship ought to be under contemporary conditions, a normative, not an analytical, question. At this point, it is customary to take recourse to Schumpeter, but in discussing development today this may be misleading.[1] The less developed countries are not in need of "innovators" as much as of "imitators," people who apply the techniques already developed elsewhere. This does not seem to require the exceptional personal qualities of the "Schumpeterian" entrepreneur. Nor is it, perhaps, essential that the entire cultural-intellectual climate of the country be first reoriented in a direction that reproduces some favorable historic constellation in the West—if there really ever was without question anything so definite.

I do not mean to make light of the relevance of what is somewhat vaguely termed the "climate of entrepreneurship." Probably its most effective ingredient is the example set by a significant number of businessmen successfully engaged in certain activities, particularly in manufacturing industry. But are these the Schumpeterian pioneers or their imitators? It is a peculiar twist of the Schumpeterian concept that the glory belongs to the pioneer; yet it is the imitation on a massive scale by his lowly followers that transforms the pioneer's forward step into a magnitude of economic relevance.[2]

To imitate what was initiated elsewhere requires knowledge of a

[1] See also H. W. Singer, "Obstacles to Economic Development," *Social Research,* XX (Spring 1953), pp. 19ff.

[2] In underdeveloped countries, moreover, the imitation and adaptation of foreign techniques is, in a way, also a pioneering step, as daring as innovation under more advanced conditions.

very specific sort. Under backward conditions the absence of essential elements of information, skill, and experience is, however, quite pronounced. It is therefore desirable to concentrate on such specifics in preference to the elusive concept of "climate." This will be done in the following section.

III

Since I have dealt with this topic before, an apology is due to readers of another paper[3] for using my earlier findings for a working hypothesis. It rests on the assumption that among businessmen, or prospective businessmen, profit motivation is the most forceful determinant. True, considerations of status, prestige, etc., may also be important but the pool of chiefly profit-oriented businessmen is large enough even in underdeveloped countries to invite investigation of their investment preferences without attempting to explain why other persons stay away from business altogether.

Before a businessman invests in a new venture, he will attempt to weigh his profit prospects against the risk of incurring losses. To do so requires information in many specific directions. The factors that determine his future profit are the size of the market for his product and the share of the market he can conquer, the selling price, his cost of production, including the cost of capital, selling expenses, and other overhead expenditure, and not overlooking reserves for bad debts and other contingencies.

The extent of information available on these items, to be discussed shortly, will shape the prospective investor's profit expectations. However, even if objectively complete information were available this would not make for a state of subjective certainty because the investor will also have to weigh the possibility that all or some of the information cannot be safely projected into the future. The degree of such "predictability" of profits and risks, in turn, depends on objective and subjective factors related to the time horizon.

Rather than continue this discussion in general terms, I propose to

[3] "Investment Decisions in Underdeveloped Countries," in *Capital Formation and Economic Growth*, a conference volume of the National Bureau of Economic Research (Princeton, 1955). Since that paper was drafted there appeared an article on the subject by Martin Shubik: "Information, Risk, Ignorance and Indeterminacy," *Quarterly Journal of Economics*, LXVIII (November 1954). See also B. S. Keirstead, *An Essay in the Theory of Profits and Income Distribution* (Oxford, 1953), and W. T. Easterbrook, "Uncertainty and Economic Change," THE JOURNAL OF ECONOMIC HISTORY, XIV, No. 4 (1954), 346–60.

take up a few of the items that enter into rational profit and loss appraisals in order to demonstrate the low state of information in underdeveloped countries compared with intelligence available elsewhere. One of the most crucial items is the *volume of sales* as determined by the size of the market and the competitive situation. To appraise the market for specific commodities is quite difficult because detailed statistics are usually lacking. In industrial countries, moreover, a prospective investor has other reference material, such as trade literature and market surveys; he can obtain the advice of trade associations or hire the services of skilled and experienced advisers. Such facilities are lacking in most underdeveloped countries and the prospective investor has to make the best guess he can about the magnitude of demand. To estimate future trends, cyclical, or growth of demand, may well exceed the ability of most traders, no matter how experienced.

Where the prospective market is very limited, the investor is apt to consider the entry too risky unless he is given some assurances that he will not have to share it with uncertain numbers of competitors. He attempts therefore to obtain, and often is granted by governments, security against the entry by others. At the least, he is customarily accorded protection against competitive foreign products through tariffs, import restrictions, and other devices. This, incidentally, reassures the prospective industrialists not only about the volume of future sales, but also regarding the *sales price,* another important determinant of his venture's profitability. Such measures will lessen his uncertainty and this, it will be recalled, is the relevant aspect for our purpose.

As a next step, a decision has to be taken about the *size of plant* and the *suitable technology*. In this respect smallness of the market may keep the plant from reaching the most economical size. The size of plants tends to be smaller in underdeveloped countries. Moreover, reversed factor costs, cheap labor, and high cost of capital, may call for a technology that differs from that employed in industrial countries. Recognition of such an ambiguity introduces an additional element of uncertainty into investment decisions: if it is not safe to imitate advanced industrial techniques, what is the alternative? Where else can a more appropriate technology be found? Will the prospective investor have to become a "pioneer" after all? [4] His dilemma is intensified by the fact that he lacks the advanced technical services that are

[4] This corresponds to Schumpeter's "adaptive innovation."

locally available in industrial countries. If he has to secure experts from abroad, the difficulty of selection also makes for uncertainty, and the high cost adds to the risk.

Investors in underdeveloped countries are also at a comparative disadvantage in estimating their *capital requirements.* Since most equipment has to be imported, capital needs are inflated by the cost of transportation over great distances. Moreover, the absence of basic facilities often compels new industries to build their own power plant, transportation links, and repair shops; they also have to keep larger stocks of repair parts and raw materials than would be required in a more highly developed industrial and commercial framework. Furthermore, the correct estimation of all these requirements calls in turn for more technical knowledge and familiarity with sources of supply than is usually available locally. Underestimation is dangerous because additional capital is hard to secure owing to the wariness of commercial banks toward new ventures. Overcapitalization, however, is expensive because the cost of capital is very high in most underdeveloped countries. Either way, uncertainty results and the risk is increased on that score.

The *supply of labor* is another critical factor. As a rule, there is no shortage of unskilled labor but a very crucial one of skills on all levels. In contrast to advanced countries, there is no pool to draw on and most new enterprises have to train their workers, foremen, and even technicians and managers from scratch. This is expensive and, what is more, the actual cost is difficult to estimate in advance. Worse yet, productivity cannot be estimated with any degree of confidence. Many factors, including social and cultural characteristics, make for generally low productivity of labor, and this inevitably lowers the productivity of capital as well. Hence, advanced types of equipment often produce in underdeveloped countries less per unit of investment than anticipated. The risk of overestimation is very real in this field.

Cost calculations are also affected by uncertainties regarding the availability and cost of raw materials and all kinds of supplies that have to be brought in over great distances. Even where it seems possible to calculate the cost within tolerable limits, the degree of certainty diminishes rapidly as one looks into the future, since supply and international prices are beyond the control of any individual developing country.

The *time horizon* is of particular interest in this respect. As we have seen, it is difficult enough to obtain currently relevant information in many respects—and there are more items than I have discussed here.

Moreover, the future significance of such limited information diminishes rapidly as we envisage longer time spans. In part, this is due to objective factors because the economic and political stability of underdeveloped countries is often in doubt. Their prosperity suffers from cyclical fluctuations abroad; this affects the size of the market and the price level. The foreign exchange position of such countries is usually extremely vulnerable; this affects the availability of imported raw materials and other supplies and, in the case of devaluation, also prices and markets. Furthermore, governments are often unstable, administrative arbitrariness is rife, and investors consequently lack a healthy sense of continuity and security.

This deficiency of confidence in the future might help explain the "flightiness" of *investment preferences* in underdeveloped countries. If investors shun long-term involvement and prefer rapid turnover it may well be because a "quick dollar" is also a safe dollar. Commercial transactions are wound up in short order; if necessary, they can be liquidated in time to "get out from under," or at least rapidly adapted to changing conditions. One might object that preference for real estate investment does not fit this explanation. However, real estate finds a ready market among individuals who seek a stable store of wealth in times of trouble, a hedge against inflation, or rapid appreciation of value. This type of investment thus also offers the safety that is found in liquidity. Industrial capital, by contrast, is invariably tied down for unpredictably long periods, and this illiquidity breeds risks.

Hence, what is considered safe investment in Western countries may not necessarily appear secure under different conditions. Knowledge and information, as we saw, offer only a slim foundation for investors' expectations. The extent to which we can supplement such scant information by intuitive judgment resting on familiarity depends on the breadth of our *experience*. Ability to appraise the degree of uncertainty that is inherent in the time element comes more easily to a person who is familiar with past developments of comparable relevance. Traditional pursuits which rest on a broad base of experience therefore appear safer than new ventures.

New industries by definition lack a comparable background of experience. Therefore they are viewed as even more hazardous than objective factors of uncertainty make them appear. From this point of view one understands why industrial investment, especially in untried directions, should be regarded as a gamble—much more so than what we consider speculative activities; for the professional speculator

makes his investment decisions not once, but many times over, and he can fall back on a vast background of experience in comparable transactions. Industrial ventures, by contrast, are started infrequently during an individual's lifetime, or only a single time.

To sum up our working hypothesis: investment preferences reflect the expectations of investors regarding probable profits and possible losses. These expectations will be partly shaped by the amount of information that can be secured about various components of cost calculations. In addition, the degree of certainty that such current calculations can safely be projected into the future will have to be taken into consideration. A foreshortened time horizon causes expected profits to be discounted, and the possibility of losses to be overrated. The state of information in the industrial field is low in underdeveloped countries. The extent to which it can be at least partially supplemented by intuitive judgment depends on the individual entrepreneur's background of experience. If his past activities can be related to essential characteristics of the proposed industrial venture, he will more easily discount the risks and do justice to the opportunities.

IV

An application of this hypothesis to the analysis of entrepreneurial initiative will now be attempted. Past discussions have centered on speculation why entrepreneurial initiative appears to be lagging in underdeveloped countries. My analysis makes for a different approach that leads up to the inverse question why, despite the difficulties confronting decision-making, there actually is as much entrepreneurial initiative as we can observe. In some instances the "climate" has changed within a surprisingly short time span. Certainly Mexico, after the revolution and the radical reforms of the thirties, did not seem to offer a particularly promising climate to the private investor; yet the pace and the breadth of entrepreneurial initiative during the decade following World War II is truly astonishing. Similar developments can be observed in other Latin American countries. In particular, the interest of middle-class investors frequently awakens faster than current beliefs in the strength of traditional investment preferences would seem to take into account.[5]

[5] See, for instance, the experience in establishing the first closed-end investment company in Venezuela when 1,400 stockholders nearly doubled the initial subscription goal.—Robert Bottome, *Journal of Commerce*, June 17, 1955.

Such a rapid expansion of the entrepreneurial base is quite consistent with our hypothesis. Once new enterprises have been successfully established, the "newness" and related risk are steeply reduced. Conversely, observable success provides a foundation of experience on which later entrants can draw in their search for vital information. However, in addition to explaining the progressive broadening of entrepreneurial initiative we ought to trace this development all the way back to its origin. How did the earliest enterprises come to be established? Who were the entrepreneurs who set the course?

In this direction important and successful research has been undertaken which I need not refer to in a meeting that includes distinguished students of entrepreneurial history. However, most of these studies refer to industrially advanced countries—for obvious reasons the most tempting objects of investigation. On the other hand, if we believe that the early history of industrialization need not fully repeat itself, the study of less remote beginnings gains in interest. Unfortunately the material is usually not well organized, if at all available, and it is not surprising that this field has so far not attracted many historians. I submit, however, that it may be more rewarding than expected; the results, moreover, are of great importance to those who wrestle with the vital question of where developing countries can hope to turn for entrepreneurship.

Country studies provide material for further research, but they do not often contain all the requisite details. If I am going to offer some observations on entrepreneurship in India and Pakistan this is only incidentally due to a recent four-month mission to that subcontinent. A fair amount of information is drawn from recent descriptive and historical studies of business communities in India.[6]

A person imbued with the lagging-entrepreneurship school of

[6] D. R. Gadgil, *Notes on the Rise of Business Communities in India,* Institute of Pacific Relations, April 1951 (mimeographed); Helen B. Lamb, "The Indian Business Communities and the Evolution of an Industrialist Class," *Pacific Affairs,* XXVIII (June 1955), and "Development of Modern Business Communities in India," in *Labor, Management and Economic Growth,* Proceedings of a Conference on Human Resources and Labor Relations in Underdeveloped Countries, Ithaca, 1954 (mimeographed). General sources consulted include D. H. Buchanan, *The Development of Capitalistic Enterprise in India* (New York: The Macmillan Co., 1934), and S. M. Rutnagar, *Bombay Industries: The Cotton Mills* (Bombay, 1927). I am indebted to George B. Baldwin and Andrew Brimmer for letting me read several unpublished papers prepared by them at the Center for International Studies, Massachusetts Institute of Technology; to Morris D. Morris of the University of Washington for material on India prepared by him; and to Robert I. Crane for the loan of several papers prepared under his supervision at the University of Chicago. I am grateful to Mr. I. Khurshid, Librarian of the Planning Board, Government of Pakistan, for valuable information and stimulation.

thought might be surprised to learn that India's major industries owe their origin chiefly to native initiative, not to the British overlords. Textiles, steel, cement, sugar—in all these industries the first successful plants of significant size were established by Indians, with British capital usually entering in relatively short order. How did this come about and who were these native entrepreneurs who truly "pioneered" these industries in the subcontinent?

These industrial leaders all have their roots in certain narrowly defined business groups. Parsis and Gujeratis were most in evidence initially, with Muslims and Jews in less prominent positions. Marwaris entered somewhat later and have been gaining in importance over the last several decades. Offhand one might well question the justification of placing emphasis on groups rather than individuals. However, for one thing, the structure of Indian society actually makes for a division in groupings or "communities" that are rather sharply distinguished by origin, religion, or other characteristics. Such groups tend to intermarry and to keep close, if not exclusive, social and business contacts. This cohesion seems to impart to these groups certain common traits, including occupational patterns.

One might well recognize this structural phenomenon without, however, necessarily accepting what seems to follow. Perhaps under the influence of widely shared sociological and anthropological concepts, some observers assume that the economic behavior of members of such communities is chiefly determined by traits that can be attributed to group characteristics like national origin, religious precepts or prohibitions, caste traditions, or simply the "otherness" of minorities. Thus, much is occasionally made of the fact that the Parsis are of foreign origin and were never integrated in the Hindu caste system. On the other hand, the Parsis immigrated about a thousand years ago and their customs differ no more from those of the rest of the population than those of countless "natives" differ among themselves. Many Gujeratis belong to the Jain religion, and their preference for trading has been related to the fact that they could not go into agriculture because their religion forbids the killing of any animate being, such as insects. I am not qualified to judge the occupational impact of this factor but it hardly explains satisfactorily a pioneering proclivity in industry, with which we are here concerned.

Similarly, religion and traditions were held responsible for the fact that the Muslims in India did not play so prominent a role in industrialization as the Hindus. Yet, today in Pakistan there is a veritable

flowering of industrial entrepreneurship among the Muslims who, after partition, proceeded to establish private industry on an unprecedented scale. Have the character traits of these people changed in such short order? Would it not be more realistic to assume that the changed economic environment is responsible for this spurt of activity?

This new entrepreneurial element in Pakistan shares one characteristic with the aforementioned Hindu communities: most industrialists belong to specific groups such as Kutchis, Khojas (Ismaelis), Bhoras, etc., that have long been specializing in trade. It is interesting to note, too, that the geographical origin of these Hindu and Muslim groups is virtually identical: the Bombay-Gujerat-Kutch area, the oldest and most important trading region of India. Incidentally, some Muslims in these groups were early converts from Hinduism; they have, moreover, the same historic-economic background as their Hindu counterparts who belong to the traditional trader and money-lender castes.[7]

Other similarities could be mentioned in a more speculative vein. Judging by outsiders' descriptions of Kutchis in Pakistan and their counterparts in India, the same sharp perception of opportunities and hard drive toward profit goals characterize both groups. One might even wonder about the significance of the fact that the Parsis in India and the Khojas (Ismaelis) and Bhoras in Pakistan are small groups with a strong sense of cohesion among themselves and business orientations that transgress borders. It may also be worth mentioning that the Ismaelis are adherents of the Aga Khan who counsels the faithful from abroad and is not above occasionally including sound business advice in his periodic messages.

In line with the hypothesis I presented before, I would prefer to assign a residual role to such factors. The most outstanding similarity between the Muslim and Hindu groups that became prominent leaders in industry is, undoubtedly, their background as traders. I propose to show that this background of general experience, and the specific information it affords to prospective industrialists, might well have been important factors in industrial-investment decisions, though they cannot remove uncertainty altogether. Let us once more take up the elements discussed in the preceding section, beginning with the size of the market.

[7] This is also true for the Marwaris who originated in Rajputana (now Rajasthan), the desert region west of Bombay, whence their activities spread not only west but also east to Calcutta where they became prominent in trade and banking, later also in industry.

A trader is better placed than an outsider if he plans to manufacture commodities he has previously only sold. The Parsis and Gujeratis, for instance, have long been connected with the processing and exporting of cotton, and with the import and trade of textiles. It stands to reason that a wide experience in trading or in financing such trade provides a most useful background of experience that helps a prospective industrialist to find his bearings, correctly assess the market, and anticipate the prices at which he could expect to sell. Moreover, he can achieve some security by hitching his own interest to that of the nation. Where governments want to promote national industrial development they are usually willing to attract and assist newcomers by concessions and inducements designed to guarantee a safe market at profitable prices. An experienced trader knows what he wants and he is well placed to appraise what he gets.

The procurement of capital is not so great a problem to traders as it might well be to outsiders. As a rule they have amassed some wealth through their commercial activities, and as members of similar-minded groups they can hope for additional funds from relatives and friends. Moreover, when the time comes for importing the capital goods required for the establishment of new industries the importer-trader benefits from his international associations. He knows Western ways; he can obtain information, locate reliable sources of supply, and secure technical advice and specialized personnel. For instance, it has been said that the Parsis found it easy to establish proper connections because they had long been close to the British as their agents in foreign trade and, generally, as a link between them and less international-minded Indians.

Broad commercial experience clearly helps in many ways that affect the soundness of cost calculations. Even though manufacturing has its own characteristics, the amount of information needed by a merchant is much smaller than what a commercially less experienced person would have to find out. The businessman also commands resources and skill that outsiders usually lack.

The merchant does not, by any means, specialize only in short-term transactions. He, too, has to take chances and, especially in foreign trade, he needs to think ahead and plan at least for the intermediate term.[8] Thus, while industrial investment covers a longer time span than trade, this extension of the time-horizon makes fewer demands

[8] See also Bert F. Hoselitz, "Entrepreneurship and Economic Growth," *American Journal of Economics and Sociology,* XII (October 1952), p. 99.

on a trader with experience and vision than on other newcomers to industry.

It is, of course, well known that traders have played a prominent role in industrialization. The preceding discussion, however, helps to show that the traders' ability to use capital derived from preindustrial activities is only one factor, and perhaps not the most important one. Furthermore, the approach selected by me affords an economic outlook on phenomena that used to be explained exclusively in noneconomic terms, for example the fact that "alien" traders are frequently in the forefront of industrialization: Greeks, Syrians, Armenians, and Jews in Egypt; refugees from Asia Minor, in Greece; French ("Barcelonetas") in Mexico; Italians in Brazil; Lebanese and Syrians ("Turcos") all over Latin America.[9]

It is tempting to view this phenomenon from a nationality angle, as it has in fact been done. I would rather attempt to explain it by the business background of these people. As immigrants they tended to establish themselves in trade, the field they knew best, and one from which they were less likely to be barred than from pursuits traditionally reserved for well-entrenched natives. Their perception of opportunities, sharpened by newcomers' ambition, caused such persons to look in new directions, such as manufacturing. They knew their markets, they had kinsmen and friends in foreign parts, and hence they did not lack information and counsel. What might have seemed a gamble to others, may well have looked like an obvious opportunity to the more cosmopolitan-minded.

The emphasis on traders as industrial entrepreneurs should not blind us to the fact that different backgrounds are not altogether lacking. In the history of Western industrialization craftsmen have often taken the lead. This is much less likely to be repeated in underdeveloped countries today where the craftsmen tend to be tradition-bound and are frequently economically depressed beyond rehabilitation. Middle-class elements, government employees, and professional people sometimes shift to industry as happened in Egypt.[10] A similar trend seems to shape up in Pakistan as well. However, recruits from these strata are less likely to act as pioneers in industry than to follow the profitable

[9] See Charles Issawi, *The Entrepreneur Class in the Middle East,* paper prepared for the Conference on the Near East of the Social Science Research Council, 1952 (mimeographed); George Wythe, *Industry in Latin America* (New York, 1949), *passim.*

[10] See A. A. I. El-Gritly, "The Structure of Modern Industry in Egypt," *L'Égypte Contemporaine,* 1947, pp. 374ff.

lead of others. This is a necessary function indeed, and very important for broader development; but it is less significant in the early stages with which we are mostly concerned in this paper.

I should not like to close this section without referring to the stimulus imparted to entrepreneurial initiative by wars or other emergency situations. Wars usually reduce the availability of imports and encourage substitution by domestic manufactures. This opportunity assures prospective industrialists of good prices and of a secure market free from foreign competition. We know from our analysis that this is an important consideration for investment decisions. Historically, external troubles have long been known to promote industrialization.[11] The effects of World War II can be observed in many countries in Latin America and elsewhere.[12] Regions that served as arsenals for a theater of war were exposed to a particularly strong demand for military and civilian goods. This development has been quite pronounced, for instance, in Egypt and India.

The impact and the aftermath of partition were responsible for unusual opportunities in Pakistan. Business enterprises abandoned by fleeing Hindus were available to newcomers, including Muslim refugees from India. The demand for goods was nearly unlimited, since the new state began its existence virtually without any modern industry. Thus the prospects for new enterprises were favorable, while an unprecedented degree of social mobility provided a reservoir of eager initiative. Moreover, investment funds were not lacking, some brought along by refugees, others accumulated during the war and postwar periods. I know instances of illiterate persons who started out in the "transportation business" with a couple of donkeys carrying sand and stone, and progressed to build up a sizable construction business. Others began as small contractors for the army and now own machine shops and a variety of other commercial and industrial enterprises.

Undoubtedly a shortage of goods that promises secure markets, good prices, and high profits offers an effective incentive for industrialization. For instance, within a few years private capital established a modern textile industry in Pakistan large enough to satisfy the domestic market—in fact, already too large for the present level of demand. Chronic exchange shortages, resulting in import restrictions, constitute

[11] See, among others, Henry G. Aubrey, "Deliberate Industrialization," *Social Research,* June 1949, pp. 180ff.

[12] See H. Mendershausen, "The Pattern of Overseas Economic Development in World War II; Its Significance for the Present," *Economia Internazionale,* August 1951, pp. 10ff.

another perennial stimulus in Pakistan and elsewhere. Clearly, safe markets and related elastic expectations emerge again as potent factors in industrial-investment decisions.

V

The preceding review suggests that the limits of economic analysis in the discussion of entrepreneurial behavior have not been reached. While I do not deny the strength of noneconomically motivated attitudes, I feel that the economist ought to give precedence to the search for underlying *economic* determinants of such apparently noneconomic motivation. This cannot be done unless suitable hypotheses are first developed. In the field of investment preferences I have suggested the breaking-down of the rationale of investment decisions into its component elements; in other words, to analyze the factual information available to a prospective investor, its relevance for the future, and the profit-and-loss expectations that arise from such considerations.

A cursory review intimates that we ought not to be content with explaining the strength of traditional preferences in underdeveloped countries in terms of their conservative, static character alone. We can find economic reasons for this attitude that are related to the greater degree of certainty with which the prospects of traditional ventures can be appraised, compared with long-term industrial investment. If my analysis of these factors in this and in my earlier paper is found sufficiently suggestive to warrant further investigation, it seems to open a rather wide field for comparative analysis. Historical material regarding the origin of industrial enterprises might be reviewed and special research undertaken to investigate the information on which investment decisions might be based. If intuition is substituted for imperfect information, the rationale of such judgments is equally interesting, since seemingly irrational thinking still rests on a verifiable image of reality.

For the economist the purpose of such research is not psychological insight but the formulation of policy. Persons interested in greater investment activity ought to know the obstacles, not in vague terms of "investment climates," but in specific directions that are amenable to remedial action. If concrete information is lacking, we can outline the requirements and suggest how the data can be secured and made available to investors. If lack of confidence is at fault, we can attempt

to formulate realistic policies designed to restore it. Insecurity can be attacked by legal and institutional measures, even though the political and administrative shortcomings may be beyond immediate redress. The time horizon can be lengthened by safeguards and guaranties that promise to lessen the most intractable risks. Such policies, however, depend on a prior factual analysis of the relative weight of the various factors. In the past we have had to rely on a generalized conception of what the investor's needs were supposed to be. Moreover, the investor's case was all too frequently presented in a manner that was colored by the writers' own idiosyncrasies and that abounded in clichés and stereotypes. No matter how difficult the task, it is time for historical and comparative analysis to tackle the problem in a more thoughtful and judicious manner.

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DISCUSSION

JAMES BASTER: Like Dr. Aubrey, I can make no claim to be a historian. Certainly no one would expect a historian to come from the United Nations, which can perhaps succeed only by flying in the face of history. Yet I believe that economic historians should have a great deal more to say about problems of economic development than they now do. The object of my intervention is to provoke some of them into thought, and perhaps even into speech—following thought—on this important problem of industrial investment decisions.

I accept Dr. Aubrey's position that the enterpriser in underdeveloped countries, and particularly in the Middle East, where I have some knowledge of the local scene, is not as scared or as silly as he is usually represented. He is a rational man within the limits set by his environment, which are sometimes considerable. Like his counterpart in the West, where Schumpeter has made him the dynamic hero of the economic scene, he delights in new ventures and in change and experiment for its own sake. He would, if he could, contrive new combinations of the factors of production, new sources of supplies, new goods, and new methods of production and marketing. But, as Dr. Aubrey puts it, he hesitates to take the risks involved, partly because he cannot get enough facts on the relevant aspects of production and marketing. To put it more broadly, the lack of economic traffic signals keeps him off the roads.

Big business leaders worthy of the name of innovators, who value wealth as an instrument of change rather than as a mark of status, who control (without necessarily owning) large enterprises in several locations, and who select competent subordinates from outside their own families, are not unknown in the Middle East, but they are certainly not the rule. Of course, the opportunities for systematic training for such men are few, despite numerous worthy schemes to export "enterprise" from the United States to the Middle East and to train young Arabs, Turks, and Persians in United States business schools. Innovators cannot be trained in schools; their role is, on the contrary, to defy accepted teaching. The paralysis of the intellectual muscles so often produced by formal education at the university level is quite fatal to such people. However, there is considerable evidence for the view that there are in Middle East society rich veins of native talent for business enterprise created without benefit of any formal education whatever. The classical exhibit in this field is the "wily Levantine" of romantic literature, whose habitat is the Eastern Mediterranean littoral from Istanbul to Alexandria, whose commercial instincts are uninhibited by any inconvenient national loyalty since he belongs to an Armenian, Jewish, Greek, or other minority, and whose multifarious, largely illegal, and generally mysterious trading activities yield him fabulous profits.

The truth behind this caricature may be seen in the shipping firms in Istanbul and Alexandria, the importing and exporting houses of Beirut and Smyrna, and the smaller business enterprises of Kuwait and the Persian Gulf. Middle Eastern entrepreneurs of this type operate on the cotton market in Alexandria, the foreign exchange market of Beirut (which until recently was one of the world's principal markets for "free sterling" against hard currency), and the gold market in the same city, with a transit trade in gold of $200 million in 1951.[1] Western visitors who have any anxieties about business enterprise in the Levant would be well advised to visit these cities and to spend some time—but not too much money—in the bazaars, where the forces of dynamic self-interest may be seen operating daily in almost classical simplicity. In terms of such criteria as the preference for small chances of large gains over large chances of small gains, the habit of sharp bargaining (or "basic rapacity" in Meyer's phrase[2]), the willingness to transfer resources or activities from one market to another in search of relatively small profits or in order to undercut competitors, the merchants of the Levant working within the peculiar limiting conditions of their environment can more than hold their own with those of more developed countries. Moreover, they have transplanted themselves so successfully in other countries (notably the "Syrian" colonies in North and South America and West Africa), where their well-known talents are appropriately rewarded, that it seems plausible that it is not enterprise which is lacking in their countries of origin as much as the proper framework in which to exercise it.

Of course, the more sophisticated criticism of this sort of enterprise in the Middle East is its low "time horizon"; that is, the excessively heavy discount on long-term gains which in practice restricts the average businessman's interest to trading operations extending over a short period. This rules out much industrial development, where large sums have to be invested in buildings, works, machinery, and other fixed assets for long periods of time. But the criticism cannot be pressed too far. It was notable, for instance, when the shortages of imported manufactured goods during World War II provided some encouragement to local merchants, that capacity was expanded quite rapidly in several industries in Lebanon, Syria, Egypt, and Palestine, particularly in textiles. The local innovators got their teeth into large army contracts with surprising speed, and firms with a specialized trading history extending perhaps over several generations assumed their new and profitable industrial role with patriotic alacrity, not perhaps without some decent relationship to the size of the order. There are now a few local dynasties of industrial magnates, such as the Esseli in Lebanon, Yehbi Koc in Turkey, and

[1] Profits on the gold transit trade and on foreign exchange operations in the Beirut market produced a net credit for the balance of payments of about $15 million in 1951.—Edward Fei and Paul J. Klat, *The Balance of Payments of Lebanon* (Beirut, 1954).

[2] See A. J. Meyer, "Entrepreneurship," in *Middle East Economic Papers,* American University of Beirut, 1954.

Mohammed Abud in Egypt, who have given numerous proofs of their sensitivity to opportunities for long-term profit.

Smaller men are also making good. In Syria in the last few years, an annual export of nearly 40,000 tons of raw cotton has been built up from virtually nothing in response to the cotton boom during the period 1948–1951, when raw cotton prices doubled under the influence of crop restrictions in the United States.[3] Although the subsequent crops in Syria have been disappointing owing to the defective methods of the cultivators, there can be little doubt that a new and important sector has been added to Syrian agriculture, largely through the investments of scores of enterprising Syrian merchants in pumping machinery for the irrigation of cotton land. On the industrial front this is paralleled by the investment of five firms of textile and other merchants (the so-called "Big Five") in the Syrian "United Commercial Industrial Corporation" which since 1946 has gone into spinning, weaving and dyeing, vegetable oil refining, and soap manufacture, based on cotton seed and other vegetable oils, and now has several modern plants representing a substantial outlay.

It is still obvious, even to the most casual visitor to these large plants and to the few others like them throughout the Middle East, that their management frequently leaves something to be desired. Apparently it takes a long time for the local capitalists to accustom themselves to the typical problems of organizing the employment of thousands of people in one place, of arranging for smooth supply, transport, and selling operations, and of delegating responsibilities down an administrative hierarchy. It is therefore still common to import production managers (particularly for the textile mills) from Britain and the United States. Moreover, despite these fragments of evidence that enterprise can be mobilized under specific conditions when required, it would be difficult to deny that economic opportunities of the sort that now exist in Syria, Iraq, and Persia would have been grasped much earlier in a Western country where the "time horizon" is higher. But the explanation is not lack of enterprise, but the weakness of the legal and political framework within which enterprise functions. The impartial administration of well-understood laws, the even-handed administration of justice in case of infractions of those laws, the strict observance of the political convention that no great change in the fundamental economic landmarks such as the fiscal system, the monetary system, or the laws of property should be made without ample debate and ample notice beforehand, the weight of opinion against official intervention in the "heart of the contract," that is, the pricing process—all these familiar parts of the Western economic structure have in some Middle Eastern countries only just begun to function, whereas in others they function sporadically or not at all. In the circumstances, the busi-

[3] "The Development of Cotton Cultivation in Syria," UNRWA, *Quarterly Bulletin of Economic Development*, February 1952.

nessman's characteristic heavy time discount on future gains may be fully rational. It is not timidity of enterprise which restricts long-term investment, but common prudence. The idea that Western experts can teach the merchants of the Levant how to make profits through private enterprise is a subject for humor, not for international grants-in-aid. What the merchants need is not instruction but a more stable frame of reference for their operations.

This suggests a conclusion that for a professional economist comes close, I am afraid, to professional treason. It is that the soft glow of reflected enlightenment which comes from historical speculation has some advantages in these discussions when compared to the austere glare of the differential calculus and matrix algebra. To put it in another way, the factor "enterprise" as an independent variable in a system of simultaneous equations gives us something to worry about. We itch to take some action—or at least to prepare courses of lectures on the subject. I wait for the historians to assure us that "enterprise" seems to be a by-product of the historical, irreversible, and unrepeatable process of economic development, and has seldom been found wanting in a society favorable to its exercise.

Sanford A. Mosk: I am delighted to have an opportunity to weave some comments around the thoughtful and suggestive paper Dr. Aubrey has given us. I am in essential agreement with most of what he says in his paper, for example, his point regarding the "rationality" of decisions, although I think that the central problem in this connection is not to arrive at a definition of "rationality," but rather to analyze the circumstances under which changes in "rationality" occur. I am also in agreement with the analysis of decision-making elements that Dr. Aubrey has set forth clearly in the paper. I am not, however, in agreement with some of the implications of the paper with respect to economic history and economic historians.

For economic history, the central issue arising out of Dr. Aubrey's discussion is: What are the major contributions that economic historians can make in the study of underdeveloped countries? I propose, therefore, to discuss this theme, with reference to the paper itself, and also with reference to Latin America.

Dr. Aubrey calls for two kinds of historical studies of a specific nature, in contrast to general observations on "climate of enterprise," and so on: (1) study of the origin of industrial enterprises in underdeveloped countries; (2) study of information on which investment decisions might be based. He asks, further, that such studies be useful in policy formulation.

There is no doubt that studies of the kind advocated by Dr. Aubrey are valuable. They should be carried out, by economic historians and others. However, I believe that the main contributions the economic historian can

make in this field are of a different order. They are more general in character —general, but not "vague."

What is the strength of the economic historian in the field of underdeveloped economies? It is found in a knowledge of institutions, and in an understanding of long-run change in institutions, of the direction of change, of the rate of change, and of the cumulative and interrelated character of change. As a result, the economic historian has special qualifications to appraise *new* developments in relation to long-run change.

Parenthetically, perhaps economic historians are inclined to underrate new developments and to overemphasize continuity with the past, as Dr. Aubrey implies. Perhaps we are smug in this respect. If so, we should try to free ourselves of such a bias; but then what is called for is an improvement in perspective, not a fundamental shift in central problems to which we direct our attention.

To be more specific about the contribution of the economic historian to the study of underdeveloped economies, I propose now to discuss the three kinds of contributions that I consider to be of major importance.

One is a knowledge of the earlier experience of already industrialized countries. I think that Dr. Aubrey is correct in saying that this experience is not likely to be repeated, that present developments probably differ significantly from those of the past because of the deliberate element in industrialization, the psychology of speed-up and catch-up, the prominent role of public investment, and the pervasive influence of planning. Other factors also play a part, but the most important difference relates to the far-reaching participation of government nowadays in industrialization.

What, then, is the relevance of knowledge about earlier industrial history? It consists principally of a handful of working ideas about the mobility of productive factors. This knowledge gives clues regarding what to examine in a newly industrializing country. It does not give answers, but it does suggest important questions that need to be answered. It tells us, for example, what to look for in connection with the mobility of labor, to examine the circumstances that tie people to the land, such as landowner-cultivator relations, and elements of a social and cultural character. True, some of our ideas about earlier industrial experience may need to be revised under the influence of further research. Even so, they give us valuable clues and questions for research in the field of new industrial development.

Dr. Aubrey himself gives an illustration of the use of earlier historical experience in his statement that "traders have played a prominent role in industrialization." I am not certain about the range and strength of this generalization, at any rate for the period of modern industrial development since the late eighteenth century. But in any event it gives us a clue, and an important question to be asked and answered for any newly industrializing country. Dr. Aubrey finds that the role of the trader has been important all along in India, and that it is prominent today in the industrial development

of India and Pakistan. This is probably true for other countries as well. It does not, however, seem to be true nowadays of Mexico, and I should like to devote a few moments to the experience of Mexico in this regard.

Dr. Aubrey remarks in his paper that "the pace and the breadth of entrepreneurial initiative during the decade following World War II [in Mexico] is truly astonishing." I agree. But is the initiative supplied by traders? I think not. It is true that traders played some role in the nineteenth-century industrial development of Mexico, notably in the cotton textile industry.[1] But the vigorous, active entrepreneurship manifesting itself in Mexico since World War II has been supplied by "new men." Some of them are technical men, some are ex-politicians, some are former officers of the army. Prominent, too, are Spanish refugees who had had scientific training, and perhaps technical experience as well, before they came to Mexico in the years following 1936. In my judgment, such "new men" are far more important as agents for change in Mexico than the traders, who show a passive attitude and a preference for stability rather than active development.

Furthermore, I am inclined to think that the Mexican experience is broadly true for the Latin American countries as a whole, that traders were important in an earlier day, especially in the textile industry, but that they are not the principal, active entrepreneurs in recent developments. Possibly Latin America is unique in this respect; if so, it may be the result of a very high degree of export specialization in that part of the world. Altogether, our knowledge of this question is meager and fragmentary. Additional knowledge is hard to come by. Nevertheless, we find here one of the most important questions that calls for investigation by economic historians working with Latin American materials, and probably by those working on other regions as well.

Whatever such further studies may show regarding Latin American or other countries, this issue has been introduced here to illustrate how earlier industrial experience provides a guide to important questions to be examined about factors making for change. It provides us with a handful of clues and questions, similar to those that emerge from theoretical analysis.

If I may now go on to discuss the other two main contributions the economic historian can make in this field, one of these is found in studies of individual underdeveloped countries, in an effort to understand the nature of their institutions and to evaluate the tenacity of such institutions. Here, the main goal of the economic historian is to make an appraisal of the staying power of earlier institutions in the present situation. Have they been changing? If so, when did change set in, that is, what is the depth of change in time? To what extent are cumulative effects of change being realized? I know that for the Latin American countries such studies are difficult to

[1] As regards sources of entrepreneurship, perhaps the cotton textile industry almost everywhere has been an atypical case in the early stages of development, owing principally to a widespread pre-existing demand for its products and to technological factors.

carry out because little groundwork has been done. The same statement can probably be made about most underdeveloped countries, but obviously we should not allow the difficulties to keep us from making the attempt.

Are such studies merely of antiquarian interest? Or do they have a bearing on policy formulation, as Dr. Aubrey asks of our work? My view is that they are important, even essential, for policy formulation, even though the results are expressed in broad terms and not in precise magnitudes. The major problems arise in newly industrializing countries today precisely because new and relatively large developments are being attempted by deliberate action, while older ways of thinking and behaving run counter to the new developments, or at any rate do not facilitate them. This condition is found in different degree among the underdeveloped countries, but it is true of all of them.

An illustration may be offered by referring to one of the questions featured in Dr. Aubrey's paper, the size of the internal market for industrial products and the anticipated expansion in this market. In the majority of cases, growth of the market depends on the advance of rural buying power. This factor, in turn, depends on improvements in agriculture. To make agriculture more effective may require changes in the size of holdings, but it also requires changes in crop economy. In this connection, the influence of a traditional diet assumes decisive importance. Have food habits begun to change? If so, has the change shown signs of gathering momentum? Granted, such questions are not easy to answer. But, if one is to make an appraisal of the prospective growth in the market for industrial products, some evaluation of these institutional factors has to be made. Lest there be a misunderstanding, I hasten to add that I have not attempted to give a rounded analysis of the problem of the size of the internal market in newly industrializing countries, but have confined my remarks to one illustration of a significant institutional factor in the situation.

In a sense, the problem of market size may be pushed into the background through government action designed to stimulate investment in various ways. A good flow of investment may be induced. But, if the market is not likely to expand in a parallel way, we may be sure that solving the problem in this way will spill over into other problems, notably, excess capacity and inflation. Somewhere, the institutional handicaps to development will make themselves felt.

These observations regarding the size of the market illustrate the importance of getting an understanding of a total institutional situation and of the changes that are under way, precisely what the economic historian is best qualified to do.

The other main contribution that the economic historian can make is found in comparative studies of underdeveloped countries, since such studies are also a fruitful source of working ideas to be applied in country studies

and in policy formulation. We are all aware of the difficulties involved, and of the pitfalls encountered, especially in view of fragmentary knowledge. But the task is an important one, and the economic historian should take his share of the responsibility for carrying it out.

There are, of course, many specific themes on which meaningful intercountry comparisons can be made. I propose to give here only one illustration, selected because it is a question of interest for several countries in Latin America. It is the "Indian question," and it can be dealt with by some brief comparative remarks on Mexico and Guatemala. I should say, too, that remarks that follow are tentative, subject to further investigation and analysis.

Mexico is undergoing an active development nowadays. Guatemala is on dead center, so far as development is concerned. There are obvious differences between the two countries in size of population and stock of basic resources, but I doubt that these factors would explain the difference between the two situations. Other factors also quickly come to mind. Mexico has enjoyed greater political stability in the last generation; Guatemala has all along been more of a mono-export economy than Mexico. Both have something to do with the contrast. When all such factors are set down, however, I am inclined to believe that great importance attaches to the fact that Mexico has gone a long way toward integrating its Indian population in the national culture, whereas in Guatemala nothing of this kind has taken place. The Indian in Guatemala is substantially incorporated in the national economy, as it stands, but he is not at all integrated in a cultural sense. There is a high wall between the Indian and the non-Indian in Guatemala, and on both sides of the wall one finds deep-seated suspicion and antagonism toward those on the other side, a condition analogous to the relations between colonial administrators and native peoples in colonial areas. In my judgment, this cultural barrier in Guatemala is also a fundamental barrier to economic development. It has to be broken down if Guatemala is to attain a substantial measure of economic development. And above all, it is the striking contrast with Mexico which calls attention to the importance of this factor in Guatemala.

In summary, I believe that economic historians can make three principal kinds of contributions to the study of industrialization in underdeveloped economies: (1) application of working ideas derived from the study of earlier industrial history; this experience yields clues and questions, perhaps only a handful in number, but they are nonetheless valuable in guiding research; (2) country studies, principally to understand and evaluate the problems that emerge because older institutions are incongruous with new industrial ambitions; (3) intercountry comparisons among underdeveloped countries; such studies yield additional working ideas about the process of development, about problems that emerge, and about policies that have proved useful in coming to grips with these problems.

Notes on the Rate of Industrial Growth in Italy, 1881–1913 *

THIS paper represents an attempt to summarize the first stages of a research project, the completion of which is still remote. Its purpose is to pose one or two basic problems and to indicate the directions along which the answers may lie.

I

It is obvious that in the decades following its political unification Italy's economy remained very backward in relation not only to that of England, but also to the economies of industrially advancing countries on the continent of Europe. Whatever gauge one may choose for the purposes of comparison, be it qualitative descriptions of technological equipment, organizational efficiency, and labor skills in individual enterprises; or scattered quantitative data on relative productivity in certain branches of industry, or the numbers of persons employed in industry; or the density of the country's railroad network; or the standards of literacy of its population, the same conclusion will result. It is true that there were very large differences in this respect among the individual regions of the Peninsula; but according to Pantaleoni's computations, which—subject to a considerable margin of error as they are—probably give a correct idea of the order of magnitudes involved, the private *per capita* wealth of the richest and most advanced areas in North Italy in the second half of the eighties was still very much below one half of the contemporaneous figure for France as a whole.[1]

At the same time, it was equally undeniable that by 1914 a great industrial transformation had taken place in Italy. Under these circumstances, it seemed legitimate to inquire whether and to what extent the processes of industrialization, when at length launched in the country,

* I wish to record here my indebtedness to the Guggenheim Memorial Foundation and to the Center of International Studies at the Massachusetts Institute of Technology whose generous grants enabled me to conduct my studies in Italy. I cannot possibly list here the large number of Italian scholars who so willingly and so patiently undertook to guide my first steps in a new and difficult field. Toward them I have incurred a debt for intellectual hospitality received which I cannot even hope to repay. I must confine myself here to thanking Professor Gino Luzzatto, Professor Benedetto Barberi, and Dr. Veniero A. Marsan who obtained access for me to important unpublished materials.

[1] Maffeo Pantaleoni, "Delle regioni d'Italia in ordine alla loro ricchezza ed al loro carico tributario," *Scritti varii di economia,* Third Series (Rome, 1910), pp. 242, 252.

betrayed the same characteristic features as those displayed by other relatively backward European countries of the nineteenth century in the course of their industrial development. In other words, the Italian material was approached with a series of historical questions or expectations in mind, some of which may be summarized as follows:

1. The process of modern industrialization in conditions of considerable economic backwardness was likely to assume at a fairly early stage the form of a big "initial push," showing a relatively high rate of industrial growth. The beginning of such a period may have been aided by coinciding with the turning point at the bottom of an international cycle, but the "push" was specifically "long-term" in its nature and therefore not conterminous with short-run fluctuations: once begun, it was likely to make the country fairly immune to the next cyclical recession.

2. In the course of such an initial industrial "upsurge" a backward country typically tended to favor output of producers' goods as against that of consumers' goods because in conditions of the period it happened to be in the field of the former that recent technological process had been most rapid. Heavy industries, therefore, offered far-reaching opportunities for utilizing as far as possible the advantages inherent in a late arrival upon the industrial stage.

3. Along with the productive structure of industry, its organizational structure was also likely to be affected in the direction of a considerable stress on concentration in various forms.

4. These basic features of delayed industrializations were likely to be reinforced by the use of specific institutional instruments, such as the investment policies of banks and various policies of the State. In cases of very great backwardness the role of the government was more prominent and the banks did not participate in the process until a certain degree of industrial progress had been achieved.

The following pages then purport to discuss the process of Italian industrialization before 1914 in terms of its conformity with, or deviation from, the pattern just described. Admittedly, this is a rather narrow approach and, in addition, only a few of the pertinent aspects of the problem can be touched upon here.

II

The approach as sketched in the preceding section called first of all for some measurement of the rate of growth of Italian industry during

the period under review. It necessitated, therefore, the construction of an index of Italian industrial output for the years 1881–1913, the choice of the initial year being essentially determined by statistical availabilities.

Lack of space prevents here a discussion of the writer's index; a detailed description is available in mimeographed form and will be distributed on request by the Russian Research Center at Harvard University.[2] The interested reader will find there, along with a complete statement on source materials and methods of computation (some of which unfortunately had to be rather involved), some critical evaluation of the deficiencies of that index as well as a comparison with some previous attempts in the same direction by French and Italian scholars. Let it therefore be mentioned briefly that the index comprises six main series which have been combined by using as weights the writer's estimates of value added pertaining to the years 1902–1903.[3]

There is no question that the paucity of the underlying data and the manifold uncertainties of the weighing process detract seriously from the value of the computations. Professor Warren Nutter's general strictures of index numbers as presented in his discussion of this paper are particularly pertinent to this case. Nevertheless, it seems that the index serves sufficiently the present purpose, which is to obtain a general view of the speed of the Italian industrialization in various periods and subperiods before 1914.

Table I shows the aggregate index for the whole period 1881–1913.

TABLE I

INDEX OF ITALIAN INDUSTRIAL OUTPUT, 1881–1913

1881	54	1891	67	1901	104	1911	174
1882	57	1892	64	1902	109	1912	182
1883	64	1893	70	1903	114	1913	184
1884	63	1894	72	1904	117		
1885	65	1895	73	1905	126		
1886	67	1896	75	1906	139		
1887	73	1897	78	1907	152		
1888	74	1898	86	1908	163		
1889	72	1899	92	1909	168		
1890	72	1900	100	1910	169		

[2] Alexander Gerschenkron, *Description of an Index of Italian Industrial Output, 1881–1913*, Russian Research Center, Harvard University, 1955.

[3] The six series are: (1) Mining, (2) Metal-making, (3) Engineering, (4) Textiles, (5) Chemicals, (6) Foodstuffs. Also two alternative computations based on weights derived from data on employment and horse power, respectively, have been prepared. The results as presented in the following are all in terms of an index based on value added weights.

The development of the six index industries over the period is presented in Table II:

TABLE II

INDEX OF OUTPUT OF SIX INDUSTRIES, 1881–1913
1900 = 100

Year	*Mining*	*Metal-making*	*Textiles*	*Engineering*	*Chemicals*	*Foodstuffs*
1881	71	22	54	62	9	63
1882	79	18	53	76	11	65
1883	80	27	62	92	13	68
1884	77	25	58	90	15	70
1885	77	40	61	94	17	69
1886	72	55	65	98	20	68
1887	68	66	73	118	22	67
1888	70	91	73	115	24	67
1889	71	119	71	96	26	69
1890	72	91	80	79	28	71
1891	76	72	73	62	28	70
1892	82	56	72	53	27	68
1893	80	67	85	58	26	69
1894	79	65	93	59	31	65
1895	72	68	93	62	42	66
1896	79	70	94	62	49	67
1897	90	77	93	65	56	69
1898	92	95	101	72	61	80
1899	88	101	104	89	72	86
1900	100	100	100	100	100	100
1901	103	103	105	100	102	106
1902	100	99	114	98	110	111
1903	107	120	111	108	115	120
1904	106	127	119	121	121	112
1905	108	170	124	144	132	115
1906	103	212	136	171	159	119
1907	99	218	153	196	185	122
1908	98	283	142	247	228	127
1909	93	346	136	261	257	128
1910	95	374	122	276	281	130
1911	89	377	128	287	260	141
1912	96	392	142	280	276	146
1913	98	381	134	272	281	166

The choice of subperiods into which a fairly long stretch of growth should be divided is necessarily arbitrary. For the purposes of a presentation that aims at isolating the big "upsurge," an inspection of the data seems to yield the following division:

1881–1888	Modern growth
1888–1896	Stagnation
1896–1908	Very rapid growth
1908–1913	Reduced rate of growth

The rates of growth implied in the index for these subperiods are given in Table III.

TABLE III

ANNUAL AVERAGE RATES OF GROWTH OF ITALIAN INDUSTRIAL OUTPUT FOR 1881–1913 AND SUBPERIODS *

Period	*Percentage Change*
1881–1888	4.6
1888–1896	.3
1896–1908	6.7
1908–1913	2.4
1881–1913	3.8

* Computed on the assumption of a geometric rate of growth between the first and the last years of the specified periods.

Table IV presents, for the same periods, the rates of growth implied in the indices of output of the six industrial groups.

TABLE IV

ANNUAL AVERAGE RATES OF GROWTH OF THE SIX INDEX INDUSTRIES FOR 1881–1913 AND SUBPERIODS (PERCENTAGE CHANGE) *

Industry	1881–1888	1888–1896	1896–1908	1908–1913	1881–1913
Mining	0.0	1.3	1.8	0.0	1.0
Metal-making	22.0	−3.2	12.4	6.1	9.3
Textiles	4.4	3.2	3.5	−1.2	2.5
Engineering	9.2	−7.4	12.2	2.0	4.7
Chemicals	15.1	9.4	13.7	1.8	11.3
Foodstuffs	.9	0.0	5.5	5.5	3.1

* See Note to Table III.

III

One point seems to emerge with sufficient clarity from the data contained in the preceding tabulations: Italy did have its period of a big industrial push. While there may be some question concerning the exact choice of the initial and terminal years for the individual subperiods, it seems appropriate to locate the period of the great push between the years 1896 and 1908. Before 1896 lay the years of a laborious return from the low of 1892 to the level of 1888. After 1908, the rates of growth of all the index industries but one were greatly reduced.

Rather characteristic for such a period of "long-term" growth is the ease with which it rode horse and foot across the intervening depression of 1900. It may be instructive in this connection to take a glance at Wesley Mitchell's diagrammatic "Conspectus of Business Cycles in Various Countries"[4] for the period concerned. United States and Canada remained untouched by the depression of 1900, but elsewhere its effects were grave, and particularly so on the continent of Europe. It broke the back of the long industrial push in Russia and it affected severely the countries in Central Europe which as a result of the long tariff war with France had become Italy's principal trading partners. There is little doubt that the capacity of these countries to absorb Italian exports was considerably diminished; at the same time, the competition of their industrial products with domestic goods in Italian markets was intensified. And yet the effect on Italian industrial development, although discernible, seemed almost negligible. Very similarly, a few years earlier Russia, then in the midst of her magnificent industrial upsurge, felt no more than a light ripple of the wave of the severe international depression of the early nineties; her rate of industrial growth remained unaffected on the whole.[5]

At the same time, the period was characterized by a rapid increase in the share of producers' goods in total output, even though to some extent the change must reflect the workings of the accelerator. This is shown clearly in Tables II and IV. For the six index industries, that share was 28 per cent of the index total (using value added weights) in 1896. It had been at the same level in 1881, although 1888 showed a higher percentage. But by 1908 the share of producers' goods, so computed, had jumped up to 43 per cent and was to reach 47 per cent in 1913.

All this is quite in accordance with the expectations set forth in section I of this paper. This, no doubt, is comforting. But the disappointments are just around the corner.

It is implied in what has been said before, that the rate of growth in a backward country during the early periods of its industrialization may be assumed to vary directly with the degree of the country's industrial backwardness. The more belated the big industrial upswing, the stronger it is likely to be when it comes. It seems that, considering the great delays in Italian industrialization on the one hand and

[4] Wesley Mitchell, *Business Cycles: The Problem and its Setting* (New York: National Bureau of Economic Research, 1927), p. 445.

[5] Cf. Alexander Gerschenkron, "The Rate of Industrial Growth in Russia Since 1885," *The Tasks of Economic History*, Supplement VII (1947), p. 151.

similar periods in other countries on the other, the rate of industrial growth in Italy during 1896 and 1908 was lower than might have been expected. It may be noted that Germany of the nineties was far beyond its period of initial growth and still its annual average rate of industrial growth for the years 1888–1896 amounted to almost 5.5 per cent which was indeed lower than the Italian rate of 1896–1908 but not very significantly so. When it comes to countries like Sweden, Russia, or Japan, the pertinent rates are a good deal higher than the Italian rate. Swedish industry grew at a pace of almost 12 per cent a year between 1888 and 1896; Japan, between 1907 and 1913, showed an annual rate of growth of 8.5 per cent; Russia of the nineties increased its industrial output at the rate of more than 8 per cent a year.[6]

True, comparisons of this sort are precarious and too great a reliance on them is hardly warranted. But this is not the whole story. The method of computation of rates of growth as used in the foregoing fastens attention on the initial and terminal years of each period and does not take into account the history of the intervening years. An inspection of the behavior of the index in the course of the period 1896–1908 suggests some differences as compared with cases of the "big push" in other European countries: the industrial growth in Italy, while free from any severe setbacks, seems to have proceeded in a less uniform and more jerky fashion, denoting perhaps a more delicate state of public confidence and greater entrepreneurial uncertainties and hesitations. It may be useful to ponder a little over some of the reasons that may have prevented Italy's big industrial push from displaying its full potential force.

IV

It is not intended, of course, to supply here a comprehensive list of all the retarding forces that may have influenced the industrial development of Italy in the closing years of the last and the early years of the present century. Anything beginning with the poor endowment of natural resources and ending with the mysteries of national or regional character might legitimately go on such a list. Such a broad discussion would overstep the limits set to this paper and probably not shed much additional light on its specific subject. The purpose

[6] The German and Swedish rates have been computed from data given in *Industrialization and Foreign Trade* (League of Nations, 1945), n. p. p. For the Russian and Japanese rates, cf. Alexander Gerschenkron, *op. cit.*, p. 156.

of this section is rather to concentrate upon those factors that may be of some significance from the point of view of the general pattern of development as described earlier in this paper.

1. *The Tariff.* As mentioned before, the historical experience of European countries seems to warrant the generalization that in cases of very considerable backwardness the policies of the State tended to play a very important positive role during the years of the big "upsurge" of industrial development in those countries. In the classical case of Count Witte's Russia of the nineties it would seem altogether meaningful to regard the policies of the government as the strategic factor, primarily responsible for the great spurt in industrialization of the period. Nothing comparable seems to have taken place in Italy. Not that the successive Italian governments showed no interest in the industrial future of the country. At one time or another, the government helped to launch some important industrial enterprises, the huge steelworks at Terni (1884) being perhaps the most outstanding example. Government orders did play some role in the development of Italian industry. There was the policy of subsidies to shipbuilding and navigation which was initiated in 1885[7] and extended in a somewhat revised form in 1896; there was the partial waiving of governmental royalties flowing from the iron ore mines on Elba. State aid of this nature there certainly was; yet what strikes the observer of these policies is not only their desultory character, not only the fact that they were rather less than more in appearance during the period of the great push of 1896–1908, but primarily the one-sided nature of the government's interest in industrial development, that is to say, its concentration on the least deserving branches of industrial activity.

The ineptness of governmental industrialization policies becomes quite obvious as one moves from the measures just mentioned to a consideration of the Italian tariff, which must be viewed as the real *pièce de resistance* of those policies. One might rightly wonder how much importance one should in general ascribe to tariff policies in the history of European industrializations. In some cases it was not the tariff, but its abandonment, or at least reduction, that opened the road to industrialization. In other cases, the tariff seemed subordinate to the great variety of more direct and more vigorous measures that were taken by the government. At any rate, it would seem difficult to attribute much positive influence to the tariff structure that existed

[7] Cf. "Legge concernante la marina mercantile," *Raccolta ufficiale delle leggi e dei decreti del Regno d'Italia,* LXXIX, No. 3547 (December 6, 1885).

in Italy during her big industrial upswing. In fact, it is more reasonable to regard that tariff as one of the obstacles in the road of the Italian industrialization.

The pillars of Italian protectionism were three: grain, cotton textiles, and iron and steel. In the case of grain the march of protection began in 1887 when the tariff on wheat was raised from a nominal level to 3 lire per quintal. The first step was taken gingerly. Uncandidly, the purpose of the increase was said to be a purely fiscal one.[8] The lawmakers' consciences were far from easy. The measure was unpopular and had to be adopted against the recommendations of the detailed report prepared by the special parliamentary committee on the Agrarian Inquiry.[9] But thereby the dam was broken. Further increases followed, and by 1895, with a duty of 7.50 lire per quintal, Italy's wheat production had become the most heavily protected among the major countries of the continent.[10] True, this policy was part and parcel of a widespread European response to changed conditions of wheat supply in the world markets. But two things must be remembered. On the one hand, Italy's agriculture had at its disposal methods of adjustment that were not available to an equal degree north of the Alpine wall; on the other hand, if Germany with its rapidly developing industry could afford (economically, not politically speaking) the luxury of agrarian protectionism, Italy with its much less favorable conditions, never should have dared subject the tender plant of its industrial growth to the rigors of a protectionist climate in agriculture.

But what about the industrial side of the tariff? It need not be gainsaid that, at least in principle, Italy's industrialization could have been aided by a rationally conceived and executed tariff. Such policies would have had to start from the basic fact that in a historical period in which coal exercised the main locational pull, a country deprived of the mineral, forced to obtain it (on an average) at a price twice

[8] Cf. Speech by the Minister of Finance Magliani, July 5, 1887, *Camera dei Senatori, Discussioni,* Sessione 1886–1887 (Rome, 1887), p. 1461.

[9] "Atti della Giunta per la inchiesta agraria e sulle condizioni della classe agricola," *Relazione finale sui resultati dell'inchiesta redatta per incarico della Giunta dal Presidente, Conte Stefano Jacini* (Rome, 1884), Vol. XV, Fascicolo I; also "Atti della Commissione d'Inchiesta per la revisione della tariffa doganale," *Relazione del Senatore Lampertico* (Rome, 1885), I. *Parte Agraria,* Fascicolo I, p. 184.

[10] Ghino Valenti, *Granaglie, produzione, commercio, regime doganale,* Comitato nazionale per le tariffe doganale e per i trattati di commercio (Rome, 1920), p. 97; and H. Liepmann, *Tariff Levels and the Economic Unity of Europe* (London: G. Allen and Unwin Ltd., 1938), pp. 64, 68, 72, 81, and 87. In 1913, the Italian wheat duty amounted to 41.5 per cent ad valorem. The corresponding figures for France, Germany, and Austria were 34.5, 38, and 36 per cent, respectively.

as high as that in the coal-mining countries, and thus laboring under the disadvantage of high cost in industry and transportation, should have concentrated on those branches of industrial endeavor in which the expenditure for coal was small in relation to other cost items. Furthermore, a backward country, so disabled, should have felt particularly keenly the need to promote output of new products and new industries. The vast and variegated area of engineering offered the greatest promise in this respect.

What happened in fact was the adoption in 1878 of a tariff chiefly devoted to the protection of cotton textiles and ferrous metal-making. The former was an old industry with a moderate rate of modern technological progress and accordingly relatively limited possibilities in a backward country on the European continent; the latter was a coal-consuming industry *par excellence*. It is true that a variety of engineering products was included in the tariff, yet the rates imposed on those products as a rule were such as to provide the machinery industry at best with a partial compensation for the duties accorded to iron and steel.[11]

It is true that the rates on machinery were generally increased in 1887. The cases of protectionism in reverse were eliminated and a margin of genuine protection created. But that margin, if computed ad valorem, was almost negligible. Moreover, it should be noted that the important branches of textile and agricultural machinery came to be protected by duties hardly in excess of those on steel; that the rates on machine parts were very low, thus encouraging assembling of machines rather than their production within the country; that, finally, the rate on "nonspecified" machinery—the very area of innovations—was particularly low; which should cause no surprise, as tariff-makers not only in Italy as a rule protected the existing and vocal interests, while the promise of future innovations tended to lie beyond their range of vision.[12] As one follows the parliamentary debates on the tariff of 1887 one is struck by the fact that it was with respect to engineering alone that the speakers found it advisable to pay their respects to the liberal tradition inherited from Cavour. That tradition was quickly forgotten as soon as they turned to cotton tex-

[11] Thus, e.g., the rate on steel was 10 lire per quintal while that on locomotives was likewise 10, that on railroad freight cars 9, and on steam engines 8 lire per quintal. Cf. "Legge che approva la tariffa doganale d'importazione e d'esportazione," *Raccolta ufficiale delle leggi e dei decreti del Regno d'Italia, LIII*, No. 439 (May 30, 1878).

[12] "Legge che riforma la tariffa doganale," *Raccolta ufficiale delle leggi e dei decreti del Regno d'Italia*, Parte Principale, Series 3a, LXXXV, No. 4703 (July 14, 1887).

tiles and iron and steel.[13] But this is not the end of the story. During the debates, the previously mentioned Minister Magliani promised that the excesses of the Tariff Act would be mitigated in the course of the subsequent negotiations on commercial treaties.[14] Yet if a generalization is possible with regard to those treaties it is this: the duties on cotton textiles and ferrous metals remained substantially unchanged or at best were slightly changed. The great field of tariff concessions was supplied precisely by the duties on machinery where the slim margins established in 1887 were reduced and sometimes eliminated.[15] The Italian machinery industry was largely left to its own devices.

When in addition it is noted that the equally promising field of the chemical industry, pregnant with many innovational possibilities and well suited to the conditions of the country, was quite ignored by the tariff-makers of 1887, the conclusion seems justified that the main action of government policies in the field of Italian industrialization was likely to retard rather than promote its development. The Italian Government's participation in, and contribution to, the big industrial push in the country certainly fell far short of what one might have expected on the basis of the industrial history of other backward countries such as Russia or Hungary.

2. *Other Factors.* Another weakness of the Italian industrialization of 1896–1908 may have derived from the fact that by that time the great period of Italian railroad building had been largely a thing of the past. During the years of the great Russian industrialization, 1886–1900, the railroad network increased by more than 70 per cent. There is little doubt that during that period the railroads were the fulcrum around which the industrial level of the country was being rapidly lifted. By contrast, the accretion to the Italian railroads during the

[13] A good example among many is the Report of the Committee on Tariff Inquiry, the Industrial Part of which was written by V. Ellena. Cf. "Atti della Commissione d'Inchiesta per la revisione della tariffa doganale," II. Parte Industriale, *Relazione del Deputato V. Ellena* (Rome, 1886), pp. 242, 361, and 420.

[14] Atti parlementari, Camera dei Senatori, Sessione 1886–87, July 9, 1887 (Rome, 1887), p. 1621. Incidentally, a few weeks earlier, in order to allay the uneasiness of the Lower Chamber with regard to the lopsidedness of the tariff, it was promised that an opportunity for revising the rates on machinery would be provided when the House reconvened after the summer vacation. Such a revision never was undertaken. Cf. Atti del Parlamento Italiano, Camera dei Deputati, Sessione 1886–87, June 23, 1887 (Rome, 1887), p. 3967.

[15] Cf., for example, in *Trattati e convenzioni fra il Regno d'Italia e gli altri stati:* treaty with Austria-Hungary, December 6, 1891, Vol. XII (Rome, 1892); treaty with Switzerland, April 19, 1892, Vol. XIV (Rome, 1895), and July 7, 1904, Vol. XVII (Rome, 1907); treaty with Germany, December 3, 1904, Vol. XVII (Rome, 1907); treaty Austria-Hungary, February 11, 1906, Vol. XVIII (Rome, 1930).

years 1896–1908 amounted to less than 10 per cent. Special circumstances in Italy tended to accentuate the difference. The law of 1885 by which the operation of State-owned railroads was entrusted to three private companies for the period of sixty years foreshadowed a possible discontinuation of the arrangement after only twenty years. The uncertainties created by this provision greatly influenced the investment policies of the companies in the last eight or ten years before 1905, the year in which the agreements could, and in fact did, expire. Partly for this reason, the flow of capital into the special investment funds established under the Act of 1885 was hesitant and insufficient.[16] True, after 1905, when the operation of the railroad system had reverted to the State, ambitious plans were launched to modernize and to expand tracks and rolling stock. These plans, however, matured in the ultimate years of the period 1896–1908 and came too late to change its general character.

One is free to argue that the early completion of the bulk of railroad building was likely to benefit the country's industrialization in subsequent years by releasing to industry capital that otherwise may have been attracted to railroads. But the argument does not carry much force. For the implicit assumption of a unified capital market in Italy seems to do violence to the actually existing conditions. Many a large-scale investor who stood ready to purchase railroad bonds issued or guaranteed by the government was most reluctant to engage his funds in industrial ventures. At the turn of the century, Professor Einaudi found strong words to castigate this attitude of "veneration of 4 per cent." [17] The small saver who took his money to the branches of the Postal Saving System or to Co-operative banks was even more security-minded; accordingly, his funds went into short-term commercial loans or into financing of public works by municipalities and provinces. It is significant in this connection that the period 1896–1908 was characterized by massive repatriation of Italian securities held abroad. The compartmentalization of the Italian capital market was great, and herein lay one of the specific functions of the big invest-

[16] As a result, a special provision of that Act under the terms of which the railroads were compelled to afford an additional preference of five per cent to domestic suppliers remained rather ineffective. "Legge per l'esercizio delle reti mediterranea, adriatica e sicula, e per la costruzione delle strade ferrate complementari," *Raccolta ufficiale,* Art. 21, LXXV, No. 3048 (April 27, 1885).

[17] Giulio Einaudi, *Un principe mercante, Studio nell' espansione coloniale Italiana* (Torino, 1900), p. 160. A translation into English of this fascinating essay in entrepreneurial economic history by the former President of the Italian Republic would seem very desirable.

ment banks, whose role is touched upon in the concluding pages of this paper.[18] Thus, absence of large railroad investments did not necessarily mean increased capital availabilities to industry, and the failure of the industrial "push" to coincide with a period of "railroad fever" with its specific stimulations to industrial activities may well have kept the rate of industrial growth below what it would have been, had the Russian situation reproduced itself in Italy.

Another factor, which tends to point in the same direction, deserves mention here. The political situation in Italy at the beginning of the period 1896–1908 was not propitious to quiet economic growth. The disastrous harvest of 1897, coupled with the government's prolonged hesitations to suspend or to reduce the wheat duties, led in the course of the *anno terribile*—1898—to unrest and disorders in several regions. These disturbances culminated in the Milan insurrection in May of that year and were followed by two years of repressive policies under the Peloux governments. Then came the electoral shift of 1900 and the regicide of the same year. A new page in Italy's political history was opened. It was to be overshadowed by the genius of Giovanni Giolitti's conciliatory statesmanship. An integral part of his policy of pacification was the government's adherence to the principle of strict neutrality in wage conflicts. Consequently, the strike waves rose to quite unprecedented heights. Between 1901 and 1913 there was only one year when the number of days lost by strikes remained below the one million mark; in some years of the period it exceeded three and was just under four million.[19]

Few would begrudge the poverty-ridden Italian laborer the resulting very modest improvements in his economic position. But the difference in historical situations must be pointed out. While in other countries a period of very rapid industrial growth tended to be *followed by* a period of upward adjustments in the standard of living, in Italy the two processes tended to coincide. Had the industrial upsurge in Italy taken place one or two decades earlier, in all likelihood it would have been much less disturbed by industrial strife. Great delays in industrialization do tend to be compensated for by the rapidity of the ensuing development. Yet the two factors just discussed seem to suggest that the validity of this generalization does not transcend certain limits. Along with the advantages of being late, there are also some definite

[18] Cf. Epicarmo Corbino, *Annali dell'economia italiana*, Vol. V, 1901–1914 (Citta di Castello, 1938), pp. 423 et seq.

[19] Cf. *Annuario Statistico*, 1905–7, p. 840; 1911, pp. 234–36; and 1915, pp. 313–14.

disadvantages to being very late—a point that may deserve special attention with regard to the underdeveloped countries of our time.

In speaking of the possible sources of the relative weakness of the Italian industrialization of 1896–1908 one final remark may be in order. In studying the periods of rapid initial industrialization of the major countries in Europe, one does not find it too difficult to discern some specific industrialization ideologies under the auspices of which the development proceeded: Economic Liberalism in England, St. Simonism in France, Nationalism in Germany, Marxism in Russia of the nineties, all seem to have performed a function in the process and to have performed it well. What strikes the observer of the comparable Italian development is the absence of any strong ideological basis to industrialization. Cavour's *liberismo* belonged to an era that was gone. Italian protectionism was an instrument of vested interests and failed to develop into a strong intellectual movement. The nineties in Italy were indeed a period in which Marxism seemed to have captivated the imagination of large strata of the Italian intelligentsia.[20] Some aspects of this sudden ideological swing do evoke comparisons with contemporaneous events in Russia. But unlike the Russians the Italian Marxists showed, if at all, a very restrained interest in the problems of industrial evolution of the country, although, misguidedly and somewhat ashamedly, the leaders of the Italian labor movement did lend their support to the existing industrial tariff structure. It is not unlikely that the lack of ideological grease in the wheels of Italian industrialization made them turn more slowly than they might have otherwise.

The aggregate effect of the disabilities just discussed does not seem to be negligible. In particular, as one considers the ineptitudes of the Italian tariff structure one cannot but marvel at what was actually achieved during those years within the engineering and chemical industries. The Italian entrepreneurs in those branches deserve praise indeed. But if one were to look for a single important factor that succeeded in offsetting at least some of the great obstacles to the country's industrialization, one could not fail to point to the role performed by the big Italian banks after 1895.

These banks were formed or reorganized after the disastrous banking crashes of the early nineties. The most important of them, the *Banca Commerciale Italiana* was established in 1894 under German

[20] Benedetto Croce, *Storia d'Italia dal 1871 al 1915* (Bari, 1953), p. 157. Croce himself was, of course, a case in point.

leadership and with German capital, including some Austrian and Swiss participations.[21]

In a sense, the moment was favorable. There were many industrial enterprises that the preceding storm had left stranded or drifting helplessly. They were content to accept the tutelage of the newcomers. And still the task of the latter was not light. The terrifying *vestigia* of the *Credito Mobiliare* and the *Banca Generale*—the two giant victims of the great catastrophe—remained unobliterated for a long time to come. Burdened with these remembrances; surrounded by a distrustful public and an unfriendly scholarly opinion whose somewhat monotonous insistence on the need for prudence at times seemed to verge on folly; denounced as an instrument of foreign economic penetration; faced by the effects of tariff and subsidy policies which they could not ignore, the Italian banks enjoyed a much more limited freedom of action than their counterparts in Germany or Austria. To some extent their interest in cotton textiles and iron and steel was predetermined for them by governmental decisions, and it was these two industries that found themselves in difficulties after 1908. In the case of cotton it also may have been the German influence that, for some years at least, had guided the Italian banks into a line of activities in which the German banks at home traditionally showed much less interest. It is also true that the Italian banks may have shown more interest than they did in certain innovations such as automobiles. By and large, however, what took place in Italy was a deliberate application of techniques of investment banking as evolved in Germany in the course of attempts to overcome her own economic backwardness.

The Italian investment banks of the previous period, oriented as they were upon French patterns, had never been able to advance fully to the stage of "universal banks" and to become real "department stores" in the field of banking. This was rather dramatically shown by the futility of the attempt to transform the *Credito Mobiliare* into a commercial bank at a time when its operations were already fully obscured by the shadows of the approaching storm.[22] It is possible to surmise that the upsurge of 1896–1908 was largely rendered possible by the importation of the great economic innovation of German banking in its most developed and mature form. As in Germany, not only capital

[21] These participations were part of an agreement among the founders designed to preclude institutions like the Austrian *Credit-Anstalt* from competing with the *Banca Commerciale* in the field of Italian investment.

[22] Maffeo Pantaleoni, "La caduta del Credito Mobiliare Italiano," *Studi storici di economia* (Bologna, 1936), pp. 261ff.

but a good deal of entrepreneurial guidance was channeled to the nascent and expanding industrial enterprises. As in Germany, the policy was to maintain an intimate connection with an industrial enterprise and to nurse it for a long time before introducing it to the capital market, which as often as not meant placing its stock among the banks' own clients.[23] As in Germany the banks tried to influence and modernize the methods of interenterprise credit relations. As in Germany, they were ever eager to "discipline production" of industrial branches, which bland phrase meant reduction or abandonment of competition in favor of various monopolistic compacts.[24] On the other hand, it would be difficult to discover in Italy of the period *serious* signs of a growing independence from the banks on the part of the industrial enterprises. Such tendencies became very strong in Germany after 1900. Their absence in pre-1914 Italy is not surprising and must be taken to reflect the belatedness of the country's industrialization effort. In these respects at least, the Italian case fits well into the general pattern of European industrialization in varying conditions of economic backwardness.

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[23] Cf., for example, Banca Commerciale Italiana, 1904, *Relazione del Consiglio d'Amministrazione* (Milan, 1905), p. 11.

[24] The literature on the activities of the Italian banks during the period under review is very scant. There is nothing even remotely comparable to Pantaleoni's great study of the *Credito Mobiliare*. The writer, however, had the privilege of access to at least a part of the archives of the *Banca Commerciale*.

*Growth of the Rubber Industry of Great Britain and the United States**

LITTLE more than a century ago India rubber was a curiosity. Today, it is vital to our existence. The purpose here is to examine the basic factors that have influenced the growth of the rubber industry in the United States and the United Kingdom. The method chosen is to review the industry's position before and after the introduction of the automobile, say at 1900 and 1950. Much of what is to be said might be compressed into current economic terminology. Neither disrespect for this procedure nor the inapplicability of many of its concepts to economic history has prevented this course from being adopted. The method of descriptive analysis has been chosen because it is thought that, at this stage, it would be better to demonstrate the conditions to which the historian and the economist might address themselves.

I

First, a word concerning origins. Rubber manufactures had been established in both countries by the early part of the nineteenth century. In the United States the industry took root in the footwear and textile centers of New England. Partly as a result of the business crisis of 1837, and more particularly as a result of the imperfections of the early manufacturing technique, the expansion of the industry waited upon the discovery of the sulphur-heat vulcanization process by Charles Goodyear in 1839. By this means rubber manufacture could be extended to mechanical devices of every kind and, at a later date, to the production of solid and pneumatic tires. Because of the losses sustained by the premature development of the American rubber industry, Goodyear was obliged to turn for help to Britain.[1] In that country the most important work had been done by the English practical mechanic Thomas Hancock and the Scottish chemist Charles Macin-

* I am most indebted for the assistance received from my wife and Mr. Sam Weiner. My colleagues Professors R. H. Barback, R. Brandis, H. Brems, M. Frankel, G. Kleiner, and R. Stearns made helpful criticisms of an earlier version of this paper. To Miss G. L. Wallace, Mr. E. G. Holt, Mr. H. Allen, Mr. M. L. Myers, and Mr. A. Healey I am indebted for valuable assistance.

[1] Charles Goodyear, *Gum Elastic*, I (New Haven, 1855), p. 117.

tosh.[2] It was under the latter's influence that the waterproofing of garments became the speciality of the British as footwear became the speciality of the Americans. Before the first Goodyear samples of vulcanized rubber had arrived in England in 1842 there had been a consolidation of the Hancock-Macintosh forces—primarily to obtain additional capital—with certain textile interests in the Manchester area.

The circumstances surrounding Goodyear's failure to raise funds in Britain and Hancock's rediscovery of vulcanization in 1843 will not be gone into here.[3] While the critical weaknesses of rubber had attracted the attention of some of Europe's leading scientists, it rested with Goodyear and Hancock to open the door to a new era in the history of rubber manufacture.

The contributions made by other industries to the early development of rubber manufacture are noteworthy. The growing gas industry furnished naphtha as a solvent; the equipment used in the finishing processes of textile manufacture provided the pattern for the early rubber calenders or coating machines; and the first rubber mills or grinders were similar to the "Pug Mill" used by builders for kneading clay. It is impossible to estimate the debt owed by the rubber footwear industry to the much older boot and shoe trade.

One other feature worth mentioning is the importance of patent rights. The existence of these rights, uncertain as they often proved to be and with all the abuses they engendered, provided the mainspring of endeavor between the inventor, the entrepreneur, and the capitalist. Thus Goodyear was eventually able to obtain the necessary assistance in the United States as Hancock and Macintosh were able to do in the United Kingdom.

II

By 1900 the industry was firmly established. The widespread adoption and improvement of the vulcanization process since 1850, coupled with the growing use of steam and electrical power, had provided an ever widening market for rubber mechanical devices. The increase of population and the rising standards of living had created vast new markets for footwear and clothing. The major developments in com-

[2] The story of their work is told in Hancock's *Personal Narrative* (London, 1857), and *Biographical Memoir* of Charles Macintosh by his son, George Macintosh (privately printed, 1847).

[3] See an article by the author, "Origins of an Early English Rubber Manufactory," *Bulletin of Business History*, XXV, No. 1 (March 1951).

munications and transportation had also made themselves felt in the demand for crude rubber. The impact of the cycling craze of the nineties was felt in both countries.

By the turn of the century, despite the rise of the rubber industry elsewhere, America and Britain still consumed more than half the world's supply of crude rubber.[4] Judged by the amount used, the period of most rapid growth in the United States in the second half of the nineteenth century was during the sixties when consumption grew two and a half times. In the seventies and eighties the figure doubled again, falling off at the end of the century. The rate of growth of the British industry in the same period was at its greatest from 1850 to 1870, particularly during the fifties when consumption was stimulated by the Crimean War.[5] Although, until 1881, the United Kingdom's gross imports were larger than those of the United States, about one half of these imports were re-exported, whereas American re-exports were negligible.

One of the most influential factors affecting the growth of the industry was the wide fluctuations in price and quality of rubber which represented 30 to 40 per cent of total costs.[6] The concentration of so much of the rubber crop in the Amazon Valley and the fact that its varying quality ruled out the establishment of a futures market made the growing rubber trade an attractive field for the speculator and a hazardous one for the manufacturer.[7] While progress in the development of reclaimed or substitute rubber was made on both sides of the Atlantic, it was the Americans who undertook its earliest production on a commercial scale. By the end of the century American consumption of reclaimed rubber equaled that of the natural product. The British, on the other hand, sought an alternative to fluctuating

[4] 31,500 long tons out of a world total of 52,500 long tons.

[5] Consumption figures during the second half of the nineteenth century are as follows:

United States		*United Kingdom*	
1849	1,000 long tons	1851	608 long tons
1859	1,500 " "	1861	1,936 " "
1869	3,756 " "	1871	4,782 " "
1879	7,500 " "	1881	3,858 " "
1889	14,960 " "	1891	6,129 " "
1899	20,308 " "	1900	10,983 " "

[6] P. W. Barker, *Rubber Statistics,* Trade Promotion Series, No. 181, United States Department of Commerce (Washington, D.C.: Government Printing Office, 1938).

[7] "Selling Futures in the Rubber Trade," *India Rubber World,* September 15, 1892 (New York).

prices by increasing the flow of African supplies [8] and by transplanting rubber seeds from the Amazon Valley to their possessions in the East.[9]

Although nineteenth-century observers had noted certain differences in the manufacturing processes of the United States and the United Kingdom,[10] the fact is that apart from the fundamental inventions of Goodyear, Hancock, and other pioneers, and the rediscovery of the pneumatic tire by J. B. Dunlop in 1888, there were no vital innovations during the remainder of the century. Progress resulted from continuous improvements made by the practical man (ignorant of the basic chemical changes taking place in rubber manufacture), rather than from new scientific methods. The stimulus given to the science of rubber chemistry by German developments in the last quarter of the century did little to alter the empirical nature of the industry before the automobile age.[11]

In the absence of satisfactory productivity data, especially that allowing for changes in the products and comparative price levels, the input of rubber per wage earner during the past hundred years has been set out in Chart A. While the country with the highest consumption rate per worker is not necessarily the country with the highest productivity rate (for instance, no allowance has been made for changes in products in the two countries or in the two periods), it is a fair inference, if only an inference, that these figures cast light on productivity changes. The gradual rise of the American input curve in the second half of the nineteenth century is what we would expect to find. The problem is to explain the fall of the British curve. To what extent this fall can be accounted for by changes in the composition of the output, by improvements in the quality of the articles produced, or by a fall in British productivity levels is not known.

A critical point in the industry's growth, so far as relative rubber input per worker is concerned, was the late seventies when the American figure overtook the British. If this had occurred at an earlier date, say in the fifties, it would have accorded with other

[8] United Kingdom imports from Africa increased almost tenfold between 1870 (10,369 cwts) and 1900 (101,739 cwts).

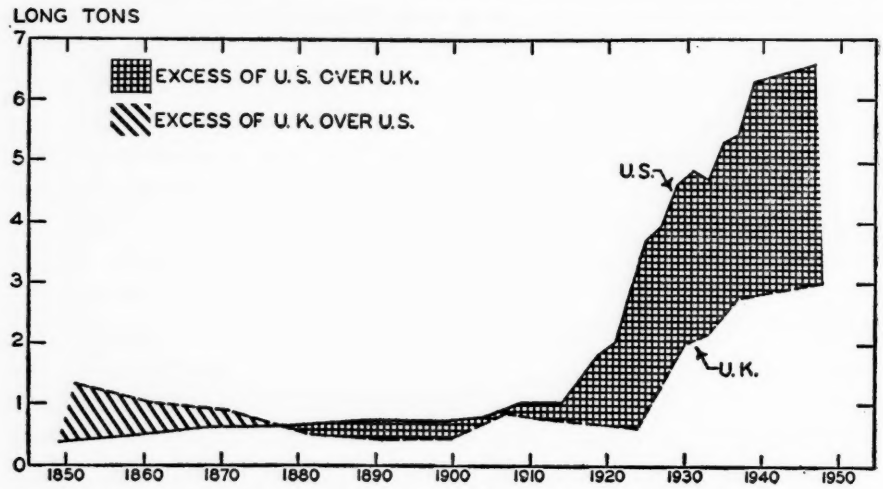
[9] C. R. Markham, *Peruvian Bark* (London, 1880).

[10] Some of these differences such as the greater mechanization in garment production and the use of hot air for vulcanizing in preference to water and steam were noted by Hugh Cecil Birley, director of Chas. Macintosh and Company, on his tour of American rubber plants in 1882. Yet in his letter of October 23 he was able to conclude that "We are not nearly so much behind the age as I thought. . . ."—*Birley Papers.*

[11] "The New German Immigration," *India Rubber Journal,* June 10, 1898 (London).

CHART A

CONSUMPTION OF CRUDE RUBBER IN LONG TONS PER WAGE EARNER IN THE AMERICAN AND BRITISH RUBBER INDUSTRY FOR SELECTED YEARS: 1850–1950.



Sources: Barker, P. W., Trade Promotion Series, No. 181 (Washington, D.C.: Government Printing Office, 1938); Censuses of Manufactures (U.S.) and Production (U.K.); also statistics reported by the Secretariat of the International Rubber Study Group. The figures, which are approximate, have been arrived at by dividing the net imports of crude rubber by the number of wage earners. While the drawing of a continuous line between selected years presents a better picture of general trends, it also conceals short-term fluctuations. Allowance has been made for the consumption of reclaimed (since 1900) and synthetic (since 1939) rubber.

evidence;[12] for the influence of American skill and technique during the early years of the industry's growth provides us with a striking example of what has been termed "the American system of manufacturing," especially the tendency toward specialization. That it did not do so can probably be ascribed to the head start and the greater capitalization of the early British plants relative to the American.

These changes in the amount of rubber processed per wage earner can hardly be unrelated to the fact that American exports of domestic rubber merchandise to the United Kingdom, which had fallen continuously during the third quarter of the century, rose continuously once the American figure had overtaken the British. It speaks volumes for the changes taking place in the United States that, when the Americans turned their attention to the European market again in the eighties, they were able to compete in finish and style as well as price and utility.

[12] See an article by the author, "The American Origins of a Scottish Industry," *Scottish Journal of Political Economy*, II (March 1955).

Two other features, always present,[13] have been the intense rivalry shown by producers and dealers, and the tendency toward amalgamation. So far as nineteenth-century experience is concerned the first of these characteristics can be explained largely by the absence of radical changes in technique and of important economies of scale, as well as the absence of product differentiation. These factors, coupled with the relatively unimportant part played by transport costs made prices and terms of sale of greatest importance to most consumers. The tendency of the American industry toward consolidation had been present since the time when Goodyear licensees formed associations to protect their rights in the forties. By the end of the century the many attempts at price agreements, cartelization, and merger had resulted in the formation of two great corporations: the United States Rubber Company, controlling the majority of footwear plants principally located on the eastern seaboard, and the Rubber Goods Manufacturing Company, which made all classes of rubber goods except boots and shoes. Even before these amalgamations had taken place, the giants of the present-day American industry had begun to sink their roots in Ohio.[14]

In Britain the consolidation movement did not get underway until the eighties. Unlike many American companies, which, partly because of the peculiar difficulties of raising capital, were organized as corporations from the first, British companies were family concerns or partnerships showing little inclination for common action.[15] Yet the Dunlop Company founded in 1888 quickly gained a degree of control over the British industry unequaled elsewhere. This was not only because the company possessed Dunlop's patent for the pneumatic tire, but also because it took the precaution of buying up patent rights as they appeared. Absorbing one undertaking after another, it eventually sat astride a great part of the British industry.[16] In the last resort it was

[13] Referring to the attempts to set up a tight monopoly in the early tire industry, one of the pioneers, P. W. Litchfield (*Industrial Voyage,* New York, 1954), concluded that "The principle of free competition took quite a beating in those days. . . ." Yet the story of the Goodyear organization (and the same is true of Firestone and others) is an account of how these attempts to restrict the trade were met and defeated.

[14] K. A. Knopf, "The Location of the Rubber Tire and Inner Tube Industry" (unpublished doctoral thesis, Harvard University, 1949).

[15] An interesting feature about the founding of the first Rubber Manufacturers Association of Great Britain in 1898 was the absence of some of the oldest and largest firms. See *India Rubber World,* May 1, 1900.

[16] A. Du Gros, *Wheels of Fortune* (London, 1938); also K. Dunlop, "The History of the Dunlop Rubber Co. Ltd." (unpublished doctoral thesis, University of Illinois, 1949).

not the patent law that gave the Dunlop organization its powerful position—indeed there was an increasing number on both sides of the Atlantic who were losing confidence in the protection afforded by the patent law at this time [17]—but the aggressive manner in which it seized the opportunities bound up with the developments in road transportation.

III

The conjunction of circumstances in the early years of the present century that brought together the internal combustion engine, cheap petroleum, and the pneumatic tire opened a new phase in the history of this industry. In 1900, five years after the first petrol-driven automobile with pneumatic tires was put on the road, the world consumption of crude rubber was only 100,000 tons. In 1950 it was 2¼ million tons. In these years there had been a dramatic switch in the source of supplies from the wild rubber of the Amazon Valley and central Africa to the vast new plantation industry of the Far East and the newly developed synthetic rubber plants. The empiricism of nineteenth-century manufacture had also given way to the science of rubber chemistry. In no other country were these changes more pronounced than in the United States. American consumption throughout this period accounts for approximately 50 to 75 per cent of total supplies. The highest point reached was during the years 1920–1924. Thenceforth the amount declined until in 1939 it was less than 50 per cent. By 1950 America possessed a synthetic rubber industry with a capacity exceeding its prewar consumption of the natural product, and to this must be added the output of the reclaimed industry which ranged from 20 to 50 per cent of the total crude supply. Consumption of crude rubber in the United Kingdom remained at a much lower level. In 1910 it was only half as great as in the United States. By 1920, after the first sudden uprush of the American automobile industry, it was one eighth. While the British figure has improved since that time, America has remained the world's largest consumer of this commodity. During World War II Britain relied on the importation of synthetic supplies from the United States. With the cessation of hostilities, however,

[17] *India Rubber Journal,* December 10, 1900: "One cannot fail to be struck by the fact that very few of the really best rubber firms appear . . . in our patent pages. Is it because they have absolutely no faith whatever in the Office? It is generally the less experienced firms that indulge in the luxury of patents. . . ."

British demand for synthetic rubber quickly fell off until in 1950 it was one per cent of British total consumption of crude rubber.

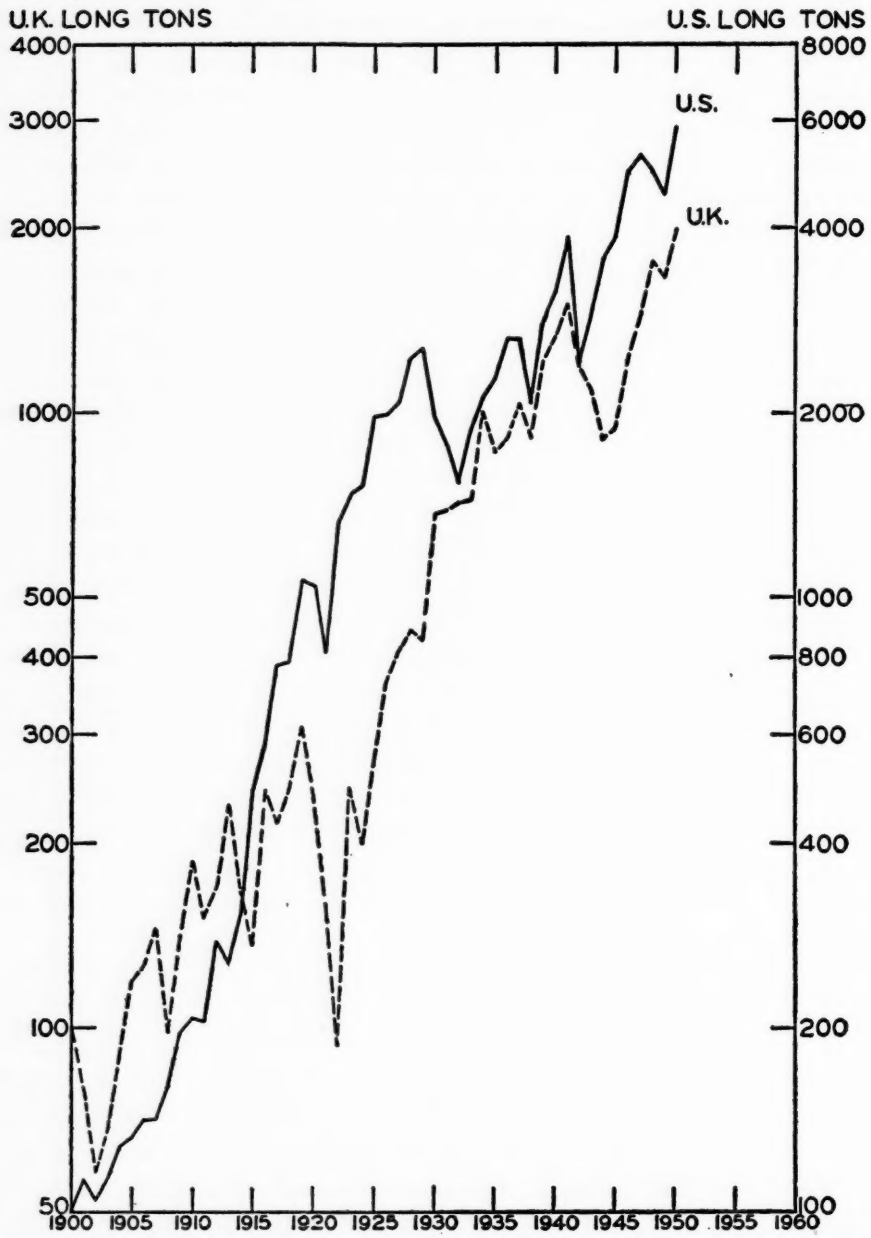
Although it would be wrong to consider the tire industry as a by-product of the automobile industry (or to assume that the tire industry is the rubber industry), the relationship between the curves of rubber consumption and motor vehicle production since 1910 is so very close that it might be permissible to place special emphasis on this aspect of the industry's growth. In the case of America, the tire trade has normally accounted for one half to three quarters of supplies, the peak consumption being reached in the twenties. In 1939 tires and inner tubes took 70 per cent as against 3 per cent consumed for footwear. Consumption figures for the British tire industry have usually been at a lower level, and only rarely has it risen above 50 per cent. The earlier start and the more rapid rise of the United States automobile industry, which reflects the state of economic development of that nation, accounts for the sudden uprush of American rubber consumption from 1910 to 1920 plotted on Chart B. This decade witnessed the most intense phase of American development. The demands of the automobile trade ensured the speedy recovery of rubber consumption after the postwar setback of 1919–1921. The relatively slow start in British automobile production explains why the most intense phase in the development of the British rubber industry was roughly a decade later than in the United States. But as Chart B illustrates, while the British were slow in starting, progress, once the most serious postwar depression had been overcome, was steady. Because of its greater dependence on the much larger automobile industry the American industry quickly dwarfed its British counterpart. But in doing so it became much more susceptible to trade and general cyclical fluctuations.

Thus, the experience of the two industries in the depression years of 1930–1933 was entirely different. Whereas British output continued to rise (allowing for the upset of the Second World War, it rose almost continuously from 1924–1950), American output suffered a severe decline, tire production between 1928 and 1932 being nearly halved. By 1938 American tire production was not much more than half of what it had been in 1928.[18] Only under the stimulus of war demand did the physical volume of production of the American tire industry exceed its 1928 level. In fact, the history of the two industries in the automobile

[18] Approximately 41 million in 1938 against 76 million in 1928.

CHART B

RATE OF GROWTH OF RUBBER ABSORPTION (1900–1937) AND CONSUMPTION (1938–1950) IN THE UNITED STATES AND THE UNITED KINGDOM EXPRESSED AS A PERCENTAGE OF RUBBER ABSORPTION IN 1900. (VERTICAL LOGARITHM SCALE)



Sources: as for Chart A. Complete and reliable data of rubber absorption (the quantity of crude rubber actually turned into manufactured rubber goods) are not available throughout the period. Net imports of crude rubber upon which the consumption figures are based are considered a satisfactory substitute for the purposes of this chart. Allowance has been made for the consumption of reclaimed and synthetic rubber.

age has been one of contrast: while the British industry enjoyed modest, quiet growth, the story of the other (linked much more closely with the fluctuating fortunes of the American automobile industry) has been one of extraordinary bursts of speed, extensive swings in output and employment, and spectacular developments such as when automobile sales fell abruptly from approximately 5,300,000 to 1,300,000 between 1929 and 1932. The steady development of "Other Goods" and their continuous growth after 1932 helped to offset this decline for crude rubber throughout the thirties. The British rubber industry was conditioned to a lesser extent by the demands of the automobile industry. Even though the Americans, like the British, have done a good deal to diversify production since the end of the second world war (the value of nontransportation goods is today increasing faster than the demands of the transportation industry), the passenger car tire still remains, to a greater extent than elsewhere, the principal product of the American rubber industry.[19]

While fewer cars were bought, and tires and cars were made to last longer during the depression years[20] (especially is this true of the United States), the irregular rate of growth of the industry during the thirties has several explanations other than the effect of general business conditions. Particular to the American industry was the establishment of overseas branch factories,[21] and the subsequent falling off in foreign demand.[22] General to both countries was the decline in the demand for tires resulting from better roads, which helped to compensate for the additional wear caused by greater speeds and

[19] The value of tires, footwear, and other products expressed as a percentage of total manufacture for selected years in the United States and the United Kingdom is as follows:

United Kingdom

	1912	1924	1935	1947
Tires	38%	44%	64%	50%
Footwear	4	5	7	6
Others	58	51	29	44

United States

	1914	1919	1925	1935	1939	1947
Tires	74%	87%	73%	66%	64%	57%
Footwear	18	10	9	8	8	7
Others	8	3	18	26	28	36

Censuses of Manufacturers (U.S.) 1930, 1940, 1947, and Census of Production (U.K.).

[20] George Rae, "The Statistics of the Rubber Industry," *Journal of the Royal Statistical Society*, CI, Part II, pp. 101, 317–75.

[21] Intelligence Memorandum No. 322, Research Association of British Rubber Manufacturers, June 17, 1955.

[22] E. G. Holt, Special Circular No. 3500, Rubber Division, Rubber Industry Letter No. 11, December 1, 1933, United States Bureau of Foreign and Domestic Commerce.

acceleration, and improved tire construction, which led to a substantial decrease in the demand for tires relative to the demand for automobiles.

As regards the improvement in tires, the remarkable thing is (and this applies to both countries) that with the exception of one important innovation in tire manufacture [23] progress has resulted, as in the nineteenth century, from continuous improvement, in good times and bad, rather than from epoch-making changes. In contrast to the progress made in rubber manufacture during the past century, most of the important contributions in recent decades have come from the laboratory rather than from the factory floor. The discovery of organic accelerators, which have hastened the process of vulcanization and improved the product, of carbon black, an important reinforcing agent, and of synthetic rubbers, for example, are not so much the result of empiricism as of careful scientific enquiry. Yet it is not easy to determine the relative contribution made by the scientist and the industrialist, any more than it is to determine the causal relation between the development of a new science of rubber chemistry and the expansion of the automobile industry. In this connection it cannot escape notice that the application of rubber chemistry has been greater in the United States where the demands of the automobile industry have been felt most.

In spite of the fact that mass production techniques have not been adopted in the rubber industry, as a whole, to the same extent as elsewhere, progress in the present century has been characterized by a rapid increase in the rubber consumption per wage earner. This is apparent from a glance at Chart A. While imperfect data and different classifications employed in the official census returns make the measuring of relative productivity in the two countries problematical, the movement of the rubber input curves casts light on the general trends. As shown above, prior to the automobile age there was not a great deal to choose between the figures. It is thought that the greater development of the bicycle tire in Britain during the early years of the present century accounts for the rise of the British input curve. From the first world war, however, the American industry began to draw away from the British and had very soon (in terms of rubber processed per wage earner) left it far behind. This is not very surprising in view of what has already been said about nineteenth-

[23] Namely, the introduction during the twenties of the flat drum process of tire building which resulted in enormous saving of time. It also enabled semiskilled labor to be used.

century trends, and the earlier and more intensive development of the American tire industry, and its greater tendency toward specialization. Yet even when, at a later date, the degree of specialization increased in the British industry it was unable to equal American levels of rubber input per wage earner, which shows at least that in the twentieth century, as in the nineteenth, specialization alone (while it is a most important factor) does not itself account for the input trends. The causes are complex and cannot be separated from the factors affecting general productivity of both countries. Not the least difficult to assess is the influence of the annual average rate of change of capital equipment,[24] although there can be no doubt of the relatively greater capital and power[25] employed by American rubber firms. Whatever the reasons, the American wage earners continued to add to their advantage in terms of the amount of rubber processed until the rise of the British motor car trade. Part at least of the remarkable increase in Britain during the late twenties resulted from the establishment of American and other foreign branch factories there following upon the introduction of the McKenna duties in 1927.[26] The rise of the British input curve during the thirties was probably due to the increase in specialization. Other factors were the stability of demand and the intensive reorganization that took place at that time.[27] The rate of increase of the two nations in recent years has stabilized with the American level remaining about twice as high as the British.[28]

[24] D. Creamer, *Capital and Output Trends in Manufacturing Industries, 1880–1948,* Occasional Paper 41, National Bureau of Economic Research, 1954. The absence of comprehensive data dealing with the British industry makes a valid comparison of capital trends impossible. So far as the American industry is concerned the trends are what one would expect: the ratio of the value of capital, in this instance consisting chiefly of land, buildings, and equipment per wage earner, rose continuously (allowing for a slight fall 1919–1923, and a sharp decline 1929–1937) from 1879 to 1948. The ratio of capital to the consumption of crude rubber has (with the exception of the period 1879–1914) fallen throughout these years. Capital data were drawn from the *Census of Manufactures* prior to 1919 and *Statistics of Income* since that time.

[25] According to Rostas, in 1929, for the tire industry, horsepower installed per worker in the United States was one and a half times that in use in the United Kingdom. In 1939 it was slightly more than two and a half times. No figures are provided in the 1947–1948 censuses. See L. Rostas, *Comparative Productivity in British and American Industry,* Occasional Papers, No. 13, 1948. Horsepower per worker in rubber manufacture has been greater than the general average. See E. G. Holt, Special Circular No. 3481, Rubber Industry Letter No. 6, August 29, 1933, United States Bureau of Foreign and Domestic Commerce.

[26] *India Rubber World,* February 1, 1931, p. 87.

[27] *The Economist* (London), CXVIII, Part I (February 3, 1934), 247–48.

[28] In the absence of a satisfactory price level deflator it is impossible to confirm these findings by value computations. An indication of these changes, however, is contained in the

The growth of the rubber industry provides an excellent example of the concentration of economic power. Assisting this movement were the volatile nature of costs and prices, the influence of the automobile industry, the need for capital to finance rapid growth, the need for vigorous research, stock market speculation, the depression (which revealed weaknesses in the profit-earning capacity of many firms), the appearance of large-scale distributors, and the actions of financiers, company promoters, and industrial empire builders.

While the total number of establishments has continued to grow—the wide variation in the size of firms as well as the number of smaller ones should not go unnoticed [29]—control of the industry has been passing into fewer hands, especially in the tire division. Thus the United States tire establishments which have been responsible for more than half the gross product of the American industry have declined in numbers from 178 in 1921 to 57 in 1947. The British data also confirms the same trend toward consolidation of ownership and employment; the 32 tire establishments in 1935 had become 19 in 1948, employing 36 per cent of the total labor force. In that year half the workers were employed in 17 establishments each with more than 1,000 wage earners. The proportion of total rubber workers employed by the largest corporation in Britain in 1949 has been estimated to be as high as 40 to 50 per cent.[30]

unweighted figures dealing with output per head comparisons by value set out below for selected years 1907 to 1948, computed from the censuses of manufacturers and production:

United Kingdom				*United States*		
Year	*Pounds*	*Dollars*	*Index*	*Year*	*Dollars*	*Index*
1907.....	138	665	100	1909.....	1,515	228
1912.....	156	758	100	1914.....	1,863	246
1924.....	288	1,264	100	1925.....	3,796	300
1930.....	334	1,619	100	1929.....	3,616	223
1933.....	327	1,386	100	1933.....	2,465	178
1935.....	312	1,528	100	1935.....	2,685	176
1937.....	303	1,496	100	1937.....	2,840	190
1948.....	741	2,986	100	1947.....	5,778	194

The following official rates of exchange have been used: 1907 £1 = $4.87, 1912 £1 = $4.86, 1924 £1 = $4.39, 1930 £1 = $4.85, 1933 £1 = $4.27, 1935 £1 = $4.90, 1937 £1 = $4.94, 1948 £1 = $4.03.

[29] Size of Establishment (number employed)	No. of Establishments U.S. (1947)	U.K. (1948)	Percentage of employment U.S. (1947)	U.K. (1948)
Up to 99	629	398	5	11
100–999	190	116	26	38
1000 and over	56	17	69	51

[30] G. L. Wallace, "L'industrie caoutchoutiere de la Grand-Bretagne," *Societe Belge d'Etudes and d'expansion,* Bulletin Bimestriel No. 163 (1954), 935.

This concentration of economic power has led neither to stagnation nor to price conspiracy. The basic characteristic of this industry remains what it was in the nineteenth century: competitive. Fewer sellers, and the division of the tire trade into two separate compartments: one for original equipment and the other for replacements, have not changed greatly the behavior of the market. Although there has been a shift recently in price competition from a manufacturer's to a retailer's level, an increase in nonprice competition, and an attempt to create greater product differentiation to stabilize demand, the rivalry between the major corporations has continued. Before the last war when the price of rubber rose, fierce competition prohibited a price rise of the manufactured products. Yet when prices of raw material fell, the price of the final product fell almost at once. It is perhaps a reflection of the profit-destroying effect of competition that, when American prosperity was at an all-time peak in the years 1918–1929, 50 per cent of the American companies reported an annual deficit on operations.[31] The British experience was not altogether dissimilar. For the most part after the mid-twenties dividends have not been high. In fact the profits of the major houses in that country in 1932 had not recovered the level attained in 1924.[32] There cannot be many other industries dominated by a relatively few, large, integrated producers where competition has been so severe and where the manufacturing division has had to absorb such losses.

The reasons for this are manifold, some of which, for the period before 1900, have already been mentioned. There can be no exaggerating the important role of the automobile industry in the present century. A consequence of the sudden rise and fall in demand for automobiles, particularly in the United States, and the seasonal changes of that trade, was that the rubber industry has at times found itself operating below capacity at raised fixed costs per unit of output. It is true that demand conditions in the automobile industry are of greater importance than cost levels in rubber, but the singular cost structure of the rubber industry, where 70 to 75 per cent of costs have been variable costs, is also of considerable influence in determining its competitive nature. Few commodities have been subject to such

[31] E. G. Holt, Special Circular No. 3472, Rubber Division, Rubber Industry Letter No. 1, July 21, 1933, United States Bureau of Foreign and Domestic Commerce.

[32] *The Economist* (London), CXXIII (April 4, 1936), 20–21. Peculiar to the British scene was the intense competition offered by foreign manufacturers from their branch factories in the United Kingdom.

wide price fluctuations as crude rubber. Since the emergence of a tire industry until the outbreak of World War II, it was always possible for inventory values to be halved or doubled. The average price per pound for rubber has fluctuated widely from the high of approximately two dollars in 1910 to 16 cents in 1921, 72 cents in 1925 and 3 cents in 1932. From 1936 until 1941, when the price was held at 22.5 cents per pound, the average annual price ranged from 15 to 25 cents per pound. Squeezed between changes in costs and prices for the finished goods, many firms were forced out of business, usually not until attempts had been made to bolster declining sales by price wars. The fact that during periods of rising prices new speculative capital has flowed into the industry has increased the problem, especially in the United States before the last war, of excess capacity. In addition, the period 1900–1950 has seen the introduction of large-scale methods in marketing. While it is wrong to regard what has been termed the "countervailing power" of the distributors as the key to economic performance in the present century, the large distributor has undoubtedly been a factor, much more so in the United States than in the United Kingdom, in determining the development of this industry.[33]

The absence of cost data for large and small establishments makes it impossible to be specific about the competitive ability of the different sizes of firms. Despite the greater flexibility of the smaller companies, the fact that they have been able to take greater advantage of inventory changes, and to economize in distribution, it is fairly evident that size has a good deal to do with survival and earning capacity. In practice considerations of finance and marketing have been of equal, if not greater, importance in determining the size of the firm than economies of scale. What the size of the optimum firm in this industry should be, especially in its many branches, is still unresolved.[34]

Finally, as the writings of the founders of the great rubber firms of the present century show,[35] the personality factor must not be over-

[33] Simon N. Whitney, "Errors in the Concept of Countervailing Power," *The Journal of Business,* XXVI, No. 4 (1953). The degree of countervailing power exerted by large buyers on large sellers in this industry is not known. What we do know is that there is a reluctance for large buyers and sellers to part company once they have come together, and that quality and delivery considerations have reduced the incentive to shift from one supplier to another in order to save a few cents a tire.

[34] E. G. Holt, Special Circular No. 3502, Rubber Section, Rubber Industry Letter No. 12, May 12, 1933, United States Bureau of Foreign and Domestic Commerce.

[35] Such as H. S. Firestone's *Men and Rubber* (New York, 1926); also P. W. Litchfield's *Industrial Voyage* (New York, 1954).

looked. Where command rests in the hands of a few men this factor has been and will continue to be of primary importance in determining market conditions.[36]

IV

While the growth of an industry is too complex a matter to be confined to the limits of a paper of this kind, it is possible to direct attention to certain points such as the part played by the rubber industry in the rise of the American system of manufacturing; the transfer of skill and technique from the New World to the Old; the conditions attending the mass production of crude rubber in one part of the world and its mass consumption in another; the decline of empiricism and the rise of scientific enquiry; the fact that apart from the discovery of vulcanization the important changes in this industry have been changes in products; and the structural changes in marketing consequent upon the industry's rapid growth. Above all, the history of rubber manufacture in the present century sheds light on the impact of one industry upon another.

In many respects the story is one of contrasts between developments in the two centuries and the two countries; between periods of upward rush and quiet growth; between plethora and famine; consolidation and competition. Yet there are similarities to be recorded: the stimulus of the automobile has been general, as was the trend toward amalgamation, and the intense rivalry.

In the present-day developments of rubber chemistry, especially in the rise of rubber substitutes, the industry has already entered upon another phase. It may well be that the joint endeavor of industrialism and science will lessen the instability of rubber manufacture and add a new chapter to the long history of the rubber industry.

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[36] Lloyd G. Reynolds, "Competition in the Rubber-Tire Industry," *The American Economic Review*, XXVIII, No. 3 (1938).

The Development of Nazi Monetary Policy

I

THE Nazis dealt rather cautiously with the German monetary system during the first two years of their regime. Hitler was particularly sensitive to questions of "confidence," and was glad to saddle Schacht with the responsibility of keeping the monetary system from blowing up in the face of the new government. But by the end of 1934, there were signs that the Nazis were beginning to take Germany out of the stream of what Goering contemptuously called "the so-called free play of economic forces." That is, they began to negate or to bypass essential elements of the market economy, particularly those that shift the structure of production, raise and lower the level of investment, and force the national economy to respond to changes in the international economy. Though they never proclaimed a clear-cut formula, the Nazis were advancing more or less self-consciously toward a principle for dealing with monetary affairs, that of offsetting or "neutralizing" the autonomous features of capitalist monetary institutions.

The problem of envisaging a core of meaning in Germany's monetary history from 1933 to 1945 is complicated by Nazi reluctance, in this as in other fields, to draw up or be bound by any theory. For a short time a few economists did show some interest in the antiorthodox aspects of Keynes, but this soon dissipated. More lasting was the attention paid to "Wehrwirtschaft" theory, a term meaning that economic institutions should be completely reshaped as integrated parts of the military machine.[1] Either because time was too short, or because the opportunistic bent in Nazi thinking was too strong to allow it, the monetary implications of *Wehrwirtschaft* policies were never fully elaborated or widely accepted.

The relationship between the Nazis' propaganda posture against the capitalistic money system and the actual monetary ordinances of Nazi Germany deserves more discussion than is possible here. Of course the ferocious pre-1933 vows to exterminate the financiers and their institutions were dropped as soon as possible. Strong "anti-finance

[1] Julius Gumpert, "Wehrwirtschaftslehre," *Finanzarchiv*, VI (1938), 514–27; Amos Simpson, *The Position of Hjalmar Schacht in a Changing Germany, 1923–1939* (University of California dissertation, 1954), pp. 153–73.

capitalism" overtones, however, did linger on, and "interest thraldom" thinking was partly responsible for some specific acts. The general antimaterialist outlook, symbolized by the vague but compelling slogan "Gemeinschaft vor Eigenschaft," carried with it a continuing suspicion of monetary institutions. Part of this hostility to finance was sincere, though for the most part the slogans it spawned can be written off as sops thrown to the consciences of the Nazi radicals. On the propaganda level, the antifinance *mystique* was sustained all through the history of the Third Reich, and after 1940 it became fashionable among the puppet governments. An example of this is a bizarre leaflet dropped in the streets of Paris which, on the outside, looked convincingly like a United States dollar bill, making it irresistible; unfolded, the leaflet was revealed as a diatribe against the evil and Jewish attributes of the dollar: the all-seeing eye of Jehovah, the eagle of Israel, and, of course, the signature of Morgenthau, "apparenté aux grands requins de la Finance internationale."

II

The monetary device used by the Nazis to deal with the unemployment crisis, the famous "work creation bill," was a sort of financial practical joke played on the German credit system. Political turmoil had choked off the last trickle of credit from the banks, which had just begun to recover from their collapse in 1931; the government was prevented from resorting to the printing presses by the still potent memories of the 1922–1923 inflation; the Reichsbank's statutes forbade its coming to the aid of the government by absorbing national securities. But the Reichsbank did have the right to discount an unlimited number of commercial bills. The government thereupon decided that the letter if not the spirit of the laws could be satisfied by having contractors draw up "commercial" bills against government bureaus for constructing public works.[2] These bills were made rediscountable at the Reichsbank and therefore were thoroughly acceptable to the joint-stock banks. The fiction that they were commercial bills was further extended by not allowing them to appear as additions to the national debt.

[2] Kenyon E. Poole, *German Financial Policies, 1932–1939* (Cambridge: Harvard University Press, 1939), pp. 16–19, 26–29. Credit for inventing this technique belongs to the Von Schleicher regime; the work creation bill was unveiled a few days before the Nazis came to power.

Apart from its cynicism, the significance of this experience, in the first place, is that it did indicate a somewhat different approach to the depression than was made in other countries, where the emphasis was on measures to expand consumption and to provide direct incentives for private investment. The Nazis had their pump-priming ventures too, but their star exhibit, the work creation bills, bypassed the market with government-created employment. In the second place, the success of the work creation program permitted the Nazi economic leaders to gloat over their ability to promote economic recovery when the pundits of orthodox finance in the gold bloc countries were failing. Confident that they were on the right track, the Nazis found the courage to resist the demand of many conservatives, in and out of the party, that the expanding economy now be turned back to private enterprise.

III

For three years of rapid economic expansion the Nazis were not overly concerned with the demand side of the economy. But with the beginnings of the Four Year Plan in the fall of 1936, the direction and the volume of increasing consumption became a problem, and the government responded quickly and decisively. The price control features of the Four Year Plan represent a most determined attempt to thwart and redirect the powerful forces of expanding national income.

The Nazis recognized that, left to themselves, these forces would shift the structure of consumption and production toward consumer durables and toward services. As early as the fall of 1934 they were nervously discussing the increased pressure for imports and the rising demand for the type of goods they chose to consider luxuries. They were fearful that the continued pressure of demand would lead to "Preiskonjunktur" (upswing dominated by price inflation) rather than "Mengenkonjunktur" (prosperity marked by an increased output of goods).[3] And they were determined that consumption goods industries as a whole be restrained in favor of investments in the "basic" industries so necessary for increasing Germany's military potential.[4]

[3] A.-I. Berndt, *Gebt Mir Vier Jahre Zeit!* (2d ed.; Munich: N.S.D.A.P. Press, 1937), p. 104.

[4] The "guns not butter" slogan was a morale item and not an indication of a serious tightening of belts. On the contrary, by 1938 per capita intake of consumer goods was probably at, or near, the 1928 prosperity level. Of course the expansion of heavy industry far outstripped that of consumer goods industry.—Burton Klein, "Germany's Preparation for War: A Re-examination," *American Economic Review,* XXXVIII (March 1948), p. 63.

Against a rising swell of bitter complaints, therefore, the Nazis ordained a price "stop" in November 1936. To show they were not shamming, they gave the new "Office for Price Formation" to a well-known Nazi leader, Joseph Wagner, supposedly "chosen for his capacity to say no." Demands for price relief from industrialists, especially those producing consumer goods, often were met with an exhaustive scrutiny of the books of the firms involved and the imposition of price reductions. But the control system was not entirely rigid, since firms most important to the Nazis' autarchy and armament program were granted price concessions to render them more profitable and more likely to expand. A formal wage freeze was not imposed until the war began, but from 1936 on the Labor Trustees successfully blocked the upward pressure on wage scales, pressure so great that even some officials of the Labor Front joined in the outcry for higher wages, and did manage to obtain higher pay for overtime and better family allowances.

In agriculture the huge mechanism of the Food Estate, which had been given control over every aspect of agricultural pricing right from the start of the Nazi regime (making agriculture an exception in the history of price control), now was drafted into the task of restraining the rising cost of living. In 1933 and 1934 the Food Estate had worked to help farmers maintain minimum prices; now farmers, food processors, and distributors were all hemmed in by maximum prices and were expected to deal with increasing costs of production as best they could.

If the Nazis had been especially concerned with courting popularity, it would have been easy for them to have pointed to the existence of the price control mechanism as proof of their good intentions, meanwhile allowing a general but moderate price rise. But they were determined that the huge sums of money they were spending would not be "sacrificed to greedy interests so they can play their games with the market." [5] Their journals were filled with more and more furious inveighing against the increased number of black market operations; and to combat these the Office for Price Formation soon penetrated every corner of the economy. The efficiency of price control bore up fairly well throughout the vast wartime expansion of money, a remarkable achievement in view of the fact that, unlike the capitalist nations, Germany had full employment exerting pressure

[5] Hero Moeller, "Wandlung der Geldtheorie," *Finanzarchiv*, VI (1938), 7.

on prices for more than eighteen months before the fighting began. This good record was accomplished partly by increasing the severity of punishments for economic misdeeds until executions became rather common.[6] Wartime price controls were elaborated to the point where they became a bit ridiculous even for the Germans; there was an enforced price distinction, for example, between hotels that did or did not serve sugar or jam with breakfast.

IV

It was in controlling the country's flow of capital that the Nazis made perhaps their most significant step toward a new monetary policy. In capitalist systems it is becoming quite acceptable for the government to assume responsibility for the total level of investment (government plus private), while allowing private business to develop pretty much on its own terms. But in Nazi Germany, as recovery reached the point where business began to break out of its harness of debt and to build up reserves for dividends and for expansion, the state intervened with an elaborate set of steering devices to channel capital resources into "basic" industries and into government loans for military expenditures. According to Nazi policy, business capital should flow, not toward those most willing to pay for it, but toward those purposes deemed most important to the Nazis' plans for their economy.

Under the previous system, the German manufacturers would have approached their joint-stock banks, so tightly linked by tradition to supporting industrial expansion. But by this time these banks, and in fact the whole credit mechanism of the country, were securely in the government's pocket. The Reich Credit Law of December 1934 had given a government committee (headed by Schacht) complete power over the policies of the commercial and savings banks, the insurance companies, mortgage credit institutes, and the rest.[7] Each large loan by the banks was subject to review by a government official; and on the production side another edict forced industry to apply to the Ministry of Economics for approval of plans for expansion of plant

[6] H. W. Singer, "The German War Economy in the Light of German Economic Periodicals—IX," *Economic Journal*, June–September 1943, p. 253.

[7] C. W. Guillebaud, *The Economic Recovery of Germany* (London: Macmillan and Co., 1939), pp. 93–96.

or erection of new factories. Permits for tapping the capital market by issuing new securities were rarely granted.

The program for "earmarking" German capital was based on price control, which assured fairly stable costs while sales were booming, and on the profits limitation laws.[8] Distribution of dividends over 6 per cent was forbidden by the Loan Fund Law of December 1934 and by similar measures in 1939 and 1941. In fact the real purpose of these laws was not to cut profits but to provide business with a hard-to-resist invitation to plow back some of its reserves, since all profits over 6 per cent (in a few cases 8 per cent) not so applied had to be "loaned" to the government or, after 1941, were taxed away at a very steep rate. One loophole did remain for firms willing to flout the purpose of the profits limitation laws: getting approval by some means for an increase in nominal capitalization did permit payment of larger dividends to stockholders without a real expansion. But most firms had to walk carefully down the clearly-defined path toward "self-financing."

For the favored "eligible" firms, reinvestment of high profits was as easy as it was politically wise; for them the government was able to adjust cost-price relations so that very high profits were possible.[9] If for some reason the firm in question could not be allowed to build up its reserves this way, the government might help with tax concessions or even direct subsidies. If all these devices were not enough for the desired increase in production capacity the government could provide additional help with its pseudo-commercial bills, now renamed "special bills."

Another agency of private investment, the stock market, was dealt with rather moderately, in view of the fact that once Jewish financiers were out of the way, the stock market became the prime object of attack for the radicals, still pounding the drums of anti-finance capitalism. When sharp upturns in market values were produced by sporadic flights from government monetary measures or by expectations of great prosperity (such as appeared a few months after the French surrender) there invariably followed a roar of protest from the Nazi left and a demand for complete abolition. After 1939 restric-

[8] Another necessary element, of course, was exchange control, which made the private investor "helpless to choose or flee."—Thomas Balogh, "The National Economy of Germany," *Economic Journal*, September 1938, p. 491.

[9] Samuel Lurié, *Private Investment in a Controlled Economy: Germany, 1933–1939* (New York: Columbia University Press, 1947), pp. 47–54, 164, 218.

tion piled on restriction was visited on the stock market, until it became virtually impossible to buy or sell shares. But the market as an institution was never formally abolished.

The Nazi government was rather careful to avoid borrowing money directly from individuals—a gesture, perhaps, in favor of "confidence." Credit institutions that were the repositories of individual savings, however, were brought sharply into line to absorb the rapidly rising public debt.[10] In 1934 the savings banks, hitherto prevented by law from investing in government bonds, were relieved of that disability. The insurance companies, too, were tapped by the government whenever it appeared they were growing sufficiently liquid. Even during the war the government preferred what it called "silent" borrowing from institutions.[11] In 1941 a half-hearted attempt was begun to promote greater savings of individuals through tax concessions (the "Eisernes Sparen"); this campaign, however, proved too troublesome and expensive for the results obtained, and it was allowed to collapse. But hoarding was another matter. The interesting attempts by the government to frighten currency hoarding out of existence have been incorrectly interpreted as another sign of Nazi perversity, since at the very same time the government was threatening hoarders with terrible punishments, it also was trying to hold down the volume of currency in circulation to ease the pressure on prices.[12] The reason for this apparent paradox, of course, is that currency hoarding broke the "circuit" from government spending to higher national income and back again to the government.

With industry, or at least preferred industry, providing most of the sources of its own expansion, and with the credit system metamorphized into sponges for government securities, there was little need for the government to step on too many Aryan toes by revolutionary changes in the fiscal system. Such fiscal restraint makes the Nazi revolution unique, so far as I know. The one important novelty was the granting of fund-raising powers to semigovernmental party organizations such as the Labor Front.[13] Of course the Third Reich had

[10] Toward the end of the war about 70 per cent of the assets of the German banking system were in the form of government securities, compared to 20 per cent before 1933.—*The Economist*, July 1, 1944, p. 19.

[11] "Die 'geräuschlose' Finanzierung," *Die Wirtschaftskurve*, May 1941, pp. 153–54.

[12] Rudolf Stucken, *Deutsche Geld- und Kreidtpolitik, 1914 bis 1953* (2d ed.; Tübingen: J. C. B. Mohr, 1953), p. 164.

[13] Otto Nathan, *Nazi War Finance and Banking* (New York: National Bureau of Economic Research, 1944), pp. 27ff.

inherited a flexible and efficient tax system from its predecessor, and economic expansion produced a sharply rising curve in the total volume of tax receipts. During the war the government gave out the notion that Germans would be relieved of any great sacrifices in taxation by the booty the Nazis expected to pick up in their conquests. And in fact, while rates were raised, the basic structure of the tax system endured largely unchanged until the very end, when the Nazis fell back on looting funds held by industries and banks in their own country.[14]

V

Of all the steps taken by the Nazis to reshape the monetary system, the most spectacular were those dealing with the manipulation of foreign exchange rates. The amazing Nazi variations played on the theme of exchange control for the purposes of bilking foreign creditors and gaining advantages in trade deals are too well known to be surveyed here. But in the context of this paper the point must be made that the foreign exchange mechanism, a device that, left to itself, forges links between the national economy and the world, was used by the Nazis to snap apart precisely those links.

For years this development was obscured by the usual Nazi combination of whining and boasting: whining that they were forced to continue their bewildering exchange rate maneuvers by the world's refusal to accept enough German exports, and boasting that Schacht's "New Plan" for licensing each import had created a "new monetary system," which worked with none of the unpredictable surges of the old gold standard. The fact is, of course, that probably by 1935, and certainly by 1936, Germany could have devalued the reichsmark and resumed her position in the international economy under very good conditions.[15]

The brutal and highly successful monetary exploitation of subjugated countries during the war can be viewed as the natural offspring of this sort of foreign exchange and foreign trade control. It affords one of the most revealing insights to the character of the

[14] Richard W. Lindholm, "German Finance in World War II," *American Economic Review*, XXXVII (March 1947), p. 133.

[15] Howard S. Ellis, *Exchange Control in Central Europe* (Cambridge: Harvard University Press, 1941), pp. 231–32.

Nazi monetary system. There was a great deal of variety in the techniques employed, since much depended on local monetary institutions and on the place each nation was to occupy in Hitler's New Order. In some cases the Nazis permitted currency inflation to wreck the economy, as in Greece. In France, on the other hand, they tried to offset inflation by bullying Vichy into instituting more rigid price and credit controls.

The Nazis tapped directly into the flow of French goods and services with two quite simple techniques. First they forced Vichy to pay an enormous tribute as "occupation expenses," only a fraction of which was needed to support the German troops. Since this sum—at first 400 million francs a day, later 300 million, and finally 500 million—was entirely beyond ordinary revenue resources, the money was provided by the printing presses of the Bank of France. Next the Germans established a "clearings" arrangement whereby French exporters would be paid out of the surpluses left from these "occupation expenses." If necessary this arrangement could have continued to drain away the substance of the French economy without the return from Germany of a single harmonica or box of aspirin—an interesting exception to the notion that foreign trade essentially consists of exchanging goods for goods. Here we have the end product—sheer looting—of the process of maintaining an adverse trade balance for Germany begun during the Four Year Plan.

A mark of the huge success of these exploitation techniques is that once instituted in France, soon after the armistice, they were never changed, except for unimportant details. For sheer efficiency even the Soviet milking of East Europe in 1945–1946 can offer nothing similar. Unlike communism, fascism was not for export, and the collaboration and sensibilities of the conquered peoples were of relatively little concern to the *Übermenschen*. The Vichy officials did make a few feeble attempts to protect their country, but the combination of threats of violence and the proffer of perfectly good legal tender (with enticingly high prices for French exporters) was too much. It is a bit disturbing to realize how vulnerable is a capitalist monetary system to unscrupulous control over its central bank. With no great effort on their part, the Germans were able to lay their hands on over 800 billion French francs—roughly two years' prewar national income.[16]

[16] Pierre Arnoult, *Les Finances de la France et l'occupation allemande (1940–1944)* (Paris: Presses Universitaires, 1951), chs. 1 and 3.

VI

The development of Nazi monetary policy points to one of the most serious flaws of liberal society—that an easy path to social control can be found through the ruthless exploitation of a centralized monetary system. Where individuals and firms depend for their very existence on the continued functioning of monetary institutions, the entire economy can be rendered pliable by the proper manipulations of those institutions. Therefore there was no need for the Nazis to abolish them. Retaining the façade of the old system, even where it was paper thin, as in the case of the stock market, was valuable for reassuring the timid. At the same time, of course, the Nazis were blasting out a never-ending stream of revolutionary-sounding slogans to help keep the radicals in line.

The presence of monetary institutions superficially similar to those of a capitalist society is one of the reasons fascism still is viewed by some as "a controlled and managed capitalism." But a careful examination of the manner in which the Nazis made their money perform proves that it was precisely here that they were attacking the very heart of capitalism. The main ingredients of Nazi monetary policy were consistently directed toward stripping money of its "Mephistophelian tyranny," the better to make it a passive instrument. In the area of foreign exchange, money was cut off from its function as an expediter of international trade and turned into a weapon for foreign economic exploitation. In internal trade the distributive function of money no longer carried with it the customer's freedom of choice that is part of the concept of money as a medium of exchange. Unlike capitalism, where monetary policy operates by preference only on the total volume of purchasing power, in order to leave as much scope as possible for prices to adjust supply and demand, Nazi fascism used prices to help force the nation toward the structure of production its leaders required. Meanwhile, the money markets were twisted into an entirely new shape: the commodity markets were replaced by the pricing office of the Food Estate; the stock market was manacled; and the banks were cut off from their customary connections with trade and industry and were changed into agencies for absorbing and holding the public debt.

The recent growth in the importance of monetary policy to capi-

talist nations has taken place within an entirely different framework than the one sketched in this paper for Nazi Germany. In capitalism, it is now agreed, monetary policy can be made into a first line of defense against business fluctuations, and even to some extent into an instrument of economic progress and of "redistributive" social justice, without seriously or permanently deranging market activities. Even conservatives are accepting the idea that it is not the presence of controls—even a great number of controls—that counts, but rather their relationship to the natural mechanisms of choice.

Fascism should not be allowed to slip too far away without an earnest attempt to clarify the structure and the meaning of its monetary system and its economic system in general. A serious danger lies in the present confused understanding of these issues. It is easy to predict that in some future employment crisis the argument that fascist monetary policy "worked" might prove attractive to persons who do not understand what it was or what it signified.

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French and Canadian Exchange Rate Policy

WHATEVER may have been the merits of the gold standard in the nineteenth century, it has not proved a satisfactory system of exchange since 1913. The decentralization of the world financial system, the greater liquidity of the public's holdings, and the appearance of capital movements unrelated to movements of trade have rendered abortive attempts to return permanently to the gold standard.[1] In any event, the unwillingness of governments, increasingly dependent on the favor of the lower income groups, to allow or compel the contraction of domestic credit in response to changes in international demand prevented the operation of a system that depends on such adjustments. But the gold standard of the nineteenth century cast a long shadow behind it. It was kept as an ideal until the 1930's and the world consequently lived by expedients.

More recently, attempts have been made to find exchange arrangements that avoid the difficulties of the gold standard and yet have an economic rationale making them universally applicable. The delay in seeking alternatives to the gold standard is partly attributable to the prestige of the traditional system, and partly to the generally accepted but incorrect interpretation of certain past experiences with free exchange rates. When a free exchange system was first generally used in modern times, namely after World War I, highly unstable exchange rates led the public to mistake this reflection of general monetary instability for its cause. Professional opinion gave exaggerated support to the popular conception. This paper will be concerned with two experiences with free exchange rates: that of Canada from 1950 to the present, in which exchange fluctuations were slight, and that of France from 1919 to 1926, which has frequently been used as an illustration of the unfavorable consequences of free exchanges.

Under stable economic conditions, the average or normal level of a free rate of exchange is determined by purchases and sales made with a purpose other than that of making a profit from changes in the rate. In this framework, the speculator tries to buy a foreign currency when its price is low and to sell it when it is high. If he succeeds, he

[1] William Adams Brown Jr., *The Gold Standard Reinterpreted, 1914–1931* (New York: National Bureau for Economic Research, 1936), ch. 21.

makes a profit and smooths out fluctuations in the rate. If he fails, he unstabilizes the rate, makes a loss, and eventually withdraws from the market.

Recent Canadian experience with a free rate has confirmed these theoretical expectations. Prior to October 1950, the price of the Canadian dollar was fixed at U.S. $0.90. Increasing strength in Canada's external economic position led to the widespread conviction that the price of the Canadian dollar would rise. This conviction caused a very large inflow of speculative capital,[2] which made the control of domestic credit difficult. The Canadian Government reacted to the inflow by freeing the exchange rate. This step was not taken because of doctrinal conviction that a system of free exchange rates would promote the easiest adjustment to any future change in Canada's international economic relations, but because the logic of the particular situation offered no acceptable alternative. It was feared that a new parity would be either overvalued, as had occurred under similar circumstances in 1946, or still undervalued.[3] Recourse to renewed exchange control was out of the question. Even today the official position is that the free rate is a temporary arrangement until the long-run equilibrium rate can be determined at which time the rate will be fixed at that level. But the long-run equilibrium rate is a will o' the wisp when monetary authorities will not consistently manipulate domestic credit in accord with changes in international conditions.

Since October 1950, fluctuations in the exchange rate have reflected changes in underlying conditions. The price of the Canadian dollar fluctuated around U.S. $0.95 for one year after it was freed. From November 1951 it rose until it reached U.S. $1.05 in September 1952 when it fell again to slightly over U.S. $1.00 in June 1953. It has since fluctuated between U.S. $1.01 and $1.04. During these years the flow of long-term capital into Canada was steady and little affected by changes in the rate, but was rather determined by the possibility of satisfactory earnings over many years. The principal causes of variations in the rate of exchange were the large autonomous changes in the balance of payments on current account, principally in merchandise trade. In 1951, when the rate was low, Canada had an important current account deficit; the rate rose rapidly as the deficit was replaced by a surplus in 1952. In both 1953 and 1954 the deficit of the first half

[2] Canada, Dominion Bureau of Statistics, *The Canadian Balance of International Payments, 1946–1952.*

[3] Canada, Minister of Finance, *Statement,* September 30, 1950.

of the year exceeded that of the second half and the rate was lower in the first than in the second half of the year.[4]

Speculators furnished the funds that tempered the fluctuations in the rate and financed the swings in the current account. Speculators who had purchased assets in Canadian dollars before October 1, 1950, were partly disappointed in their expectations when the rate was allowed to find its own level, for it did not rise far. Some speculators, principally those holding Canadian bank accounts, withdrew their capital and took what profit they could, but holders of outstanding Canadian securities held on and indeed increased their holdings during the next six months.[5] Liquidation of security holdings occurred after the third quarter of 1951 when the improving current account position of Canada raised the price of the Canadian dollar by ten per cent. Short-term funds moved in a similarly equilibrating manner in later years.

In summary, we have seen that the Canadian exchange rate was quite stable despite freedom to move in a period troubled by the inflation promoted by the Korean war, the postwar decline, and the subsequent rise in American business activity. Of course, the free rate did not solve all Canada's international economic problems. As the rate rose, export industries received lower prices. Some domestic industries suffered from increased foreign competition and clamored for more tariff protection. But the relative position of different industries within Canada would have been the same under the gold standard when increased demand for Canadian exports would have led to increased domestic costs.

A free rate of exchange does not always reflect the underlying economic relationship of a country to the world. Under peculiarly unfavorable economic conditions, speculation may increase the amplitude of fluctuations in the rate. When confidence in the stability of a country's money is so shaken that the public uses the exchange rate as a *numéraire* with which to value domestic goods and services, a speculative movement against that currency, even if unjustified by present conditions, will automatically cause a rise in domestic prices. Speculators then profit from the inflation they cause and the process may become cumulative. This can only happen where the supply of money is highly elastic and where violent and fundamental disturbances have

[4] Dominion Bureau of Statistics, *Balance of Payments, 1954.*

[5] The higher rate of interest in Canada than in the United States increased the attractiveness of the speculation.

rendered the general public conscious of day-to-day changes in the value of money. Once the violent inflations in Central and Eastern Europe had begun after 1918, their continuance can be explained in these terms.

The French experience with free exchanges after 1919 has often been used as an example of such unstabilizing speculation.[6] It really illustrates the contrary: that economic systems can withstand a great deal of disturbance without becoming unstable. Fiscal and credit conditions were highly inflationary. Tax receipts had not increased during the war so that the already large internal public debt had increased from 33 billion francs at the end of 1913 to 141 billion francs in 1918. Of this second total, 43 billion francs was in *Bons de la défense nationale* with maturities of one year or less. Governmental expenditures in France, unlike those in other countries, scarcely declined after the war because of the urgency of reconstructing the devastated areas. The debt, of which one third was floating debt, reached 289 billion francs in 1926.[7]

If the principal source of inflation was the excess of governmental current expenditures over current revenue,[8] the mere size of the debt also contributed to inflation. The interest required heavier payment than French taxpayers were willing to make to *rentiers* at a low price level.[9] It was so large that a return to the prewar exchange parity implied a transfer payment on this account of nearly one half the national income. This parity was therefore totally unacceptable for this reason, quite apart from the problem posed by the necessary deflation. Unfortunately, uncertainty was kept alive because the impossibility of returning to the prewar parity was not widely recognized until 1924 or officially acknowledged until 1928. The continuance of inflation after 1923 despite a reduced budgetary deficit does not indicate that governmental expenditures were unimportant in the inflationary process. Without inflation, the budgetary deficit would not have been reduced.

The vast floating debt destroyed monetary control. When public demand for funds increased, the banks and individuals did not renew

[6] The most influential offender in this regard is the League of Nations. The confusion in its analysis is illustrated in *The Course and Control of Inflation* (Geneva: League of Nations, 1946), pp. 43–47, where speculation that admittedly supported a rate above its future equilibrium level is nevertheless defined as "equilibrating."

[7] E. L. Dulles, *The French Franc, 1914–1928* (New York: The Macmillan Co., 1929), p. 244

[8] *Rapport du comité des experts* (décret du 31 mai, 1926).

[9] J. M. Keynes, *Tract on Monetary Reform* (London: Macmillan and Co., 1923), p. 70ff.

their subscriptions to the maturing *Bons* and used these liquid resources for speculative purchases or other purposes. The Treasury was then forced to increase its borrowing at the Bank of France. Public holdings of *Bons* were an index of public confidence in the franc, for fear of inflation induced the purchase of foreign exchange, real property, and stocks. Declines in holdings of *Bons* were also caused by nonspeculative factors such as the need for increased working capital or the increased rate of interest available on nongovernmental fixed income securities during inflation.[10]

Only one large speculative movement is reflected in the relationship between the spot and the forward rates of exchange from 1920 to 1923. The forward franc was at a marked premium, an indication of expectations of a rise in the franc, during the winter of 1920 to 1921 when the spot rate was low. The premium existed long before the franc reached its low point; hence speculation cannot be suspected of causing the subsequent rise. The trend in the exchange rate was strongly downward after the middle of 1922, but the fluctuations were not wide.

In the early months of 1924 and again from mid-1925 to July 1926, the franc first fell sharply, then rose equally sharply. It is manifest that on both occasions speculation pushed the rate below its eventual equilibrium level. A large volume of francs were sold short after the end of October 1923. The number of francs to the dollar rose from 17 at this date to 27 on March 10, 1924, when news of the impending loan of $89 million by J. P. Morgan and Company to the French Government began to spread. Purchases of francs by individuals covering their bear position and by the government to punish speculators pushed the rate back up to 15 francs at the end of April. This was too high. The rate settled around 19 francs for the next fifteen months. Another crisis of confidence occurred in 1925. The price of the dollar rose from 21 francs in October 1925, to 49 francs on July 20, 1926, whence, when confidence was restored, it fell until stabilized by the Bank of France at 25 francs. This value proved to be low in subsequent years. On this second occasion, consciousness of the depreciation of the franc was more widespread than in 1924,[11] yet domestic prices were not more affected by psychological repercussions from changes in the exchange rate. In fact, the relative change in the price level as a proportion of the relative change in the rate was slightly smaller in the period 1925

[10] Y., "Le Marché monétaire et les changes," *Revue d'Economie Politique*, XLI, 1927, p. 370.
[11] Dulles, *The French Franc*, pp. 181–82.

to 1926 than in 1924.[12] It is thus evident that the exchange rate did not dictate the level of prices and consequently then that the foreign exchange market was not unstable.

Both crises were caused by the especially unfavorable position of the Treasury, by fear that the public debt might be repudiated, and by the inability of parliament to take adequate steps to balance the budget. Expecting a fall in the franc in 1924, speculators exported capital and depressed the present rate. By making obvious the weakness of the franc, their actions brought about political changes which strengthened it. Taxes were increased by twenty per cent and loans from J. P. Morgan and Company and Lazard Frères, which depended on budgetary improvements, were obtained. The resulting rise in the rate brought heavy losses to the speculators. This speculation against the franc of 1925 to 1926 led to the total change in political atmosphere that made possible the formation of the Poincaré government.

Thus the losses made by speculators in these two periods cannot be taken as evidence of unstabilizing speculation. The exchange probably reflected accurately the prospective decline in the purchasing power of the franc, and speculators would have profited had their actions not precipitated a change in the politico-economic environment. When the exchange rate is related to other parameters of the economic system, right or wrong estimates of the future movement of the rate do not necessarily bring profits or losses, though they do under stable conditions. The failure of speculators to take into account the political reaction to the fall in the rate appears naïve, but we must remember that the mark had recently lost all its value.

In both the Canadian and the French experiences then, free rates of exchange only reflected the actual or prospective relations between one country and the world. Speculation did not spread from the foreign exchange to domestic markets and the exchange mechanism was stable in these two different environments.

Official intervention in the French foreign exchange market would not have reduced exchange fluctuations. An exchange stabilization fund reduces fluctuations by buying foreign exchange when its price is low and selling it when its price is high. In short, the fund acts as do private speculators and the only justification for its existence is if it judges the future better than do private individuals. General considera-

[12] Using end-of-month data for wholesale prices and for dollar exchange the proportion was .62 in the 1924 crisis and .53 in 1925–1926.

tions do not lead to belief in the superior foresight of governmental officials. They are often under political pressure to prefer one rate to another which hinders the maximization of the fund's profit. French officials would probably have attempted to hold the rate too high after 1919 when the official policy was that of returning to the 1913 parity. On the other hand, profits accruing to speculators who are right are huge in times of wide fluctuations and the incentive to be right is accordingly great.

The Canadian Exchange Fund Account, which has operated on a modest scale since 1950, does not appear to have stabilized the rate significantly.[13] It seems usually to regard the present rate as the equilibrium rate and tends to resist movement away from the present rate. The most that can be said is that the fund has succeeded in cutting off the very peaks and troughs of day-to-day fluctuations. This achievement is more or less accidental, arising from the fact that a delay occurs in offsetting the movements in the rate when the direction of the movement alters. If a fund's policy is always to resist a movement, it not only affects the day-to-day changes but also goes against the trend. The most extreme form of resisting movement, is to keep the rate of exchange fixed. This is a policy that requires infinitely large foreign exchange reserves in a period of inflation; France had little foreign exchange in 1926. The $56 million sold by the government during the crisis hardly affected the price.[14] In 1924, use of the foreign loans had affected the exchange, but in conjunction with other measures. In Canada in 1950, an inflow of speculative capital of approximately $1 billion forced a change in the rate the government attempted to hold fixed. We can conclude that an exchange stabilization fund is not needed to smooth out fluctuations in a rate and that it is not adequate to hold the rate at a level which speculators think the wrong one.

Only effective exchange control that restricted capital exports could have reduced the fluctuations in the franc in 1924 and in 1925 to 1926. The rate would then have fallen only with the domestic value of the franc. However, the absence of dramatic events would doubtless have retarded reform and led to a lower eventual rate. Attempts were made to prevent the export of capital by the use of regulations, but these

[13] Harry C. Eastman and S. Stykolt, "Exchange Stabilization in Canada, 1950–1954," to appear in the *Canadian Journal of Economics and Political Science.*

[14] Georges Lachappelle, "La Trésorerie et le budget," *Revue d'Economie Politique,* XLI, 1927, p. 292.

were easily circumvented. A free rate was thus inevitable. It was not the result of choice based on theoretical considerations. Indeed, the ideal was the gold standard.

After 1945, by contrast, exchange control in France was sufficiently effective to keep the exchange rate consistently above the equilibrium level. Evasion and strain compelled intermittent lowering of the rate but it was always overvalued, the inevitable consequence of domestic inflation and the ideal of a fixed exchange rate. In 1948 the franc's official parity was removed and a prospect existed of a return to a free rate, this time with effective exchange control. Unfortunately, official intervention maintained the rate at 350 francs to the dollar so consistently that it became a *de facto* fixed rate with the inevitable concomitants of black markets in foreign currency and destabilizing speculation.

The search for a satisfactory system of international monetary relations has been impeded in the past by loyalty to an outworn system and by false impressions of earlier exchange experiments. Further historical research overcomes the latter barrier to rational change and is the more useful because lessons learned in one economy can be applied directly to another. The exchange mechanism operates in a uniform manner even in dissimilar circumstances. The experience of Canada and of France under severely inflationary conditions does not indicate that a free exchange rate has a disequilibrating influence, but the contrary.

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DISCUSSION

Ross M. Robertson: I liked Professor Wolfe's paper as I read it in manuscript, and I thought it made enjoyable listening this morning. Indeed, I have little to say about it that isn't complimentary. I have picked three points —one at the beginning of Professor Wolfe's paper, one in the middle, and one at the end—for further discussion and expansion.

As to the beginning, I thought Professor Wolfe might have filled us in on the background of the Nazi monetary development. He begins by remarking that "The Nazis dealt rather cautiously with the German monetary system during the first two years of their regime." I would suggest that there was no need for them to do otherwise. Yesterday Professor Gerschenkron remarked on the close relationship between German industry and the banking community which had existed at least since the Deutsche and Dresdner Banks appeared early in the 1870's. A few large incorporated banks characteristically combined investment and commercial banking and played a strategic role in Germany's phenomenal development before World War I. In the post-World War I years the great credit banks, only four in number by 1929, continued a policy of combining investment and commercial functions. Although the 1920's saw a shift from investment to commercial banking on the part of the great banks, they continued to provide fixed capital to industry through long-term loans and through advances in anticipation of long-term issues on which they could, and did, get caught in times of crisis.

I hardly need remind you that the great credit banks were linked to their customers through representation on a borrowing firm's board of directors. Moreover, banks specialized in certain industries, and it was only natural that they should try to eliminate competition among firms in an industry in which they were interested.

When the 1931 crisis was induced by withdrawal of foreign funds, the German banks were peculiarly vulnerable because of their frozen advances to industry. After the crisis only three large deposit banks remained, and their reorganization was accomplished on government initiative and with a large amount of government ownership and control. With a strongly established central bank and its subsidiaries plus a number of government-controlled special credit institutions, there was no need for the Nazis to hurry financial institutions into the strait jacket Professor Wolfe has so well described. Indeed, if ever a country had a ready-made "totalitarian" banking structure, Germany had one in 1931. It is well, I think, for us to remember that the evolution of German banking had long been toward a highly centralized, highly controlled system.

Now for my second point. I think that Professor Wolfe might have better

separated monetary policy from related governmental policies in his discussion. I know that such a separation is no longer fashionable. But I think we can discern a monetary policy as distinct from a fiscal policy, a foreign exchange control policy, and a debt management policy. At least, for purposes of practical operation we are forever having to make such a separation. If Professor Wolfe had paid more attention to monetary policy in a narrower sense, I think he would have agreed with me on two points.

1. Both before and during World War II the Nazis used the traditional means of influencing the money and capital markets; open market operations and changes in the discount rate remained at the disposal of the Reichsbank. The traditional weapons were simply overshadowed by direct methods of regulating interest rates and flows of funds. Although the Reichsbank did not have independence of action during the Nazi regime, it served as the major consultant to the Reichswirtschaftsministerium. Incidentally, the Ministry and the Reichsbank also shared in the control of new capital issues.

2. Borrowing by the German Government was quantitatively about like that of the United States during World War II. In the four years from 1939 to 1943, new borrowing by the Reich was some 47 per cent of total government expenditures. A little less than one sixth of this amount was borrowed from foreign sources. The remainder came almost entirely from domestic banking and insurance institutions. At the end of 1943 only 10 per cent of the internally held German debt was in the hands of individuals and nonfinancial corporations. I hardly need point out that the money savings which financial institutions made available to the Reich originated with the general public. The public thus held its claims against the government indirectly in the form of bank deposits, bank notes, and future policy claims against insurance companies. Incidentally, 60 per cent of the increase in bank deposits was in the form of savings deposits.

Such considerations as these lead me to a few remarks on a point Professor Wolfe makes at the very end of his paper. Dr. Wolfe seems to think that Nazi monetary institutions were only "superficially similar" to those of a capitalistic (I should prefer the adjective "democratic") society. "Unlike capitalism," he says, "where monetary policy operates by preference only on the total volume of purchasing power, leaving as much scope as possible for prices to act as an automatic adjustor between supply and demand, the Nazis first fixed the structure of consumption for the nation, and then imposed price controls to keep it fixed."

I think Dr. Wolfe has very well put the difference in principle of operation between a democratic and a totalitarian monetary authority under normal—or perhaps I should say peacetime—conditions. I am not convinced, however, that there was any substantial difference between Nazi control of the German monetary system under wartime stress and that of, say, the United

States under similar stress. The differences I am able to observe resulted from a different historical development within a different institutional framework. They were, in short, differences of detail and not of principle.

The United States, like Germany, found it necessary to borrow internally to finance about half the cost of the war. Borrowing led to a rapid increase in the money supply and to substantial increases in the liquid asset holdings of the people. The government of the United States was successful in lodging a far greater portion of the debt in the hands of individuals and in the portfolios of nonfinancial corporations. The German Government, however, achieved about the same end by encouraging the growth of relatively involatile time deposits. Both countries had to rely on onerous price controls and materials allocation to damp down the inflation, and if we compare the first four years of each country's war effort, they were about equally successful in inhibiting consumer price rises.

We should all agree, I think, with the ethical judgments Professor Wolfe has pronounced. But we must not let our distress at Nazi ruthlessness lead us to the conclusion that German monetary management was either stupid or dishonest. So far as I can tell, it was neither.

EDWARD C. SIMMONS: Professor Eastman has chosen to defend an unpopular cause when he cites Canadian and French experience in support of the view that a free currency does not mean intolerable disorder in economic affairs. In making this observation, I do not intend to suggest that I agree with those who hold that exchange controls with all their discriminatory restraints and encumbrances upon trade must be retained until universal convertibility at fixed rates of exchange is judged to be feasible. I think that Professor Eastman and I would agree that a system of free currencies is the only sensible alternative. But we may as well recognize that we belong to the minority. The official British position is that when, if ever, convertibility comes it must be at $2.80 to the pound sterling. The proposed modifications of the European Payments Union can hardly be said to point toward flexible exchange rates.

Professor Eastman could have cited many more episodes to support his thesis. Here I think particularly of the early years of the British restriction. For several years after 1797 the exchange rate was quite stable. But I would like to pose the question of whether the issue of exchange rate policy can be dealt with finally by historical inquiry. Paper currencies have always appeared as the result of the collapse of metallic convertibility. They have always operated under explicit or implicit assurance that the old order will be restored. Unfortunately they have usually had to operate under actual policies ill designed to accomplish the government's purpose. In consequence

historical episodes provide poor laboratory data for the economic analyst. We really do not know much about how the foreign payments mechanism would function if nations were to abandon once and for all fixed parities, cease intervention in the foreign exchange markets, and, what is most important, manage their internal monetary affairs according to a publicly announced rule of policy. At most, historical studies can reveal what actually did happen under the particular institutional arrangements that prevailed.

This, however, is not unimportant. We must keep our facts straight. Certainly the willingness, if not the eagerness, with which the idea has been accepted that speculation in foreign exchange is bad must be disturbing. One wonders if it is possible to learn anything from history if it is possible to gain acceptance for such nonsense.

Another thought that suggests itself to me from reading Professor Eastman's paper is that the lack of success which has attended efforts to rebuild world currencies after two world wars may possibly be laid to a failure to appreciate the uniqueness of specific historical situations. Perhaps there has been too much of the tendency to regard gold convertibility as a generalizable historical institution. We speak of *"the gold standard"* as if it were something deliberately designed by farseeing economic statesmen. I submit that *"the gold standard"* may finally turn out not to possess historical generality and to be merely a label for a set of specific *ad hoc* arrangements in a particular set of circumstances.

The economic historian cannot be blamed for the misreading of economic history that underlies the mistaken foreign exchange policies of the present day. He cannot, however, help but be disheartened to think that men are so firmly set in their minds about the necessity of fixed exchange rates that they are willing to believe all sorts of distortions of past events. It is even more distressing to think that these beliefs are so powerful that one nation after another toils incessantly to strengthen its chinese wall of exchange control to protect itself from the imaginary dragons that are said to occupy the outside world of free currencies.

In what I have said I fear that I may have succeeded only in revealing how untutored I am in the methods of economic history. I readily admit that I lack the calm philosophical detachment that often is demanded of students of history. Nevertheless, I shall risk venturing the further opinion that more work along the lines of Professor Eastman's paper is required, even if I do not believe that historical study alone is sufficient to resolve the question of exchange rate policy.

A New Framework for Social History

I AM GOING to talk about historical comparison along a time axis in connection with the problem of a new framework for social history. Lest I be thought to aim at heights of egomania never before scaled, let me hastily add, however, that the full title of my remarks would not be "Comparison along the Time Axis: A New Framework for Social History! Come and get It!" It might rather be "Comparison along the Time Axis: A New Framework for Social History? Can Anything be Done with It?"

By social history, I mean that sort of history-writing that makes social groupings and especially socioeconomic classes the focus of its attention. At present scholars concerned with this kind of history seem to make one of two choices, neither altogether happy. They try to operate without a framework, or they operate within a stultifying framework —the Marxist interpretation of history. To choose the former is to choose accuracy and incoherence in describing chaos. To choose the latter is to choose intelligibility and coherence in describing a myth, and then to baptize the myth as history. The curious and brute fact is that a good number of historians *say* they choose the first horn of the dilemma; and then firmly impale themselves on the second horn. More historians than I should like to number, much less name, are in their historical practice bad and incompetent Marxists, incompetent because unconscious; Marxists in spite of themselves. They say they have no framework for social history, yet they write the social history of Western civilization for every century up to the nineteenth in terms of the rise of the middle class and the decline of the aristocracy, in those strictly Marxist terms and in no other.

Now why do so many historians in fact write history from a point of view that in theory they sincerely reject? The explanation of this paradox, I believe, might go something like this. With the power of genius Marx demonstrated the enormous importance for history of the conflict of economic interests organized through social classes aiming at the attainment, retention, and extension of power. But Marx did not merely *raise* the problem of classes. To his own satisfaction he solved it. This solution, based on the observed fact of class conflict, is a complete and coherent theory of social change. It is called dialectical materialism. It conceives of the social process as a regular succession of stages of socioeconomic development emerging from one an-

other as antitheses and syntheses. We historians were rightly impressed by Marx's insight into the conflict of classes. It gave us a whole new set of exciting insights into the way things happened. But when we picked up the notion of class conflict, we quite unconsciously picked up with it Marx's theory of social change. We bought ourselves a package deal. The trouble is that the concept of class interest and class conflict is sound, one of the consistent patterns of history; but the Marxian theory of social change, dialectical materialism, is only the brilliant product of an overheated, overspeculative, nineteenth-century German imagination. Since any new framework for social history ought to seek to avoid the confusion into which our unwary absorption of the Marxist scheme has led us, we had better have clearly in mind the bare essentials of that scheme as it applies to the Western world.

The Marxist scheme derives its explanation of about a millennium of the history of Western civilization from three indisputable observations of fact and one somewhat gratuitous assumption. The first fact is that before the year 1000 the dominant social class in the Western world was comprised of men who derived both their income and their power from the possession of large amounts of land and of enforceable claims on the labor and income of the men who worked the land. The second fact is that between 1000 A.D. and Marx's own day the Western world underwent vast changes, economic, social, political, religious, intellectual. The third fact is that in Marx's own time in the countries most advanced economically the dominant social class was composed of men who derived income and power not from land but from the ownership or control of industrial and trading capital. The gratuitous assumption is that the total history of all the major processes of change, economic, social, political, religious, intellectual, for the whole millennium can be explained in terms of the ceaseless conflict of the two classes, the landed class and the business class, a conflict marked by the gradual, irregular, but uninterrupted decline of the former and the contrapuntal uninterrupted, irregular, but gradual rise of latter. It is these facts and this one gratuitous assumption that for about fifty years has been the effective framework of social history. They have been the stickum with which the specialists have held together whatever particular bits of social history they have happened to be dealing in. Historians who have not used that stickum have simply sold their wares loose, as if to say to the consumer of history, "Here it is. Put it together if you can. We can't."

What is wrong with the Marxist theory is fairly clear. The trouble lies with the gratuitous assumption, which is in fact Marx's theory of social change. To the exigencies of Marx's gratuitous assumption the multiplicity and variety of change in a millennium of Western civilization simply cannot be fitted. The course of history from the ninth century to the nineteenth was just not as Marx described it. Indeed, the fruitful part of Marx's vision—the sense of the historical role of economically based social groupings, their inner structure, their interplay and conflicts, has been utterly blasted by its barren aspects, a pitifully narrow and provincial theory of historical change; and the whole Marxist operation has degenerated into sterile pedantry. That historians, by no means Marxist, have joined in the dreary game of "Button, button, where is the bourgeoisie?" has made that game no more edifying or less dreary.

What can we learn from this sad misadventure? First, that any new framework for social history must not be a prefabricated theory of social change for which historians will forever thereafter be called upon to supply proofs. Second, that it must be a tentative sort of scaffolding, easily extended or torn down and reconstructed to help us in handling our materials, as we learn more about what we can do with those materials. Third, that on the fundamental principle that "History is what happened to happen," it must take social and economic groupings as it finds them. It must not therefore prostrate itself in unholy worship before the altar of the materialist mystical three—feudal, bourgeois, proletarian.

Now the caveats just entered considerably simplify the task that I have set for myself. On the basis of them I am absolved from attempting to draw up a surrogate for Marx's over-all theory of social change. The way social change in fact took place is something we may find out about by *using* our framework; it is not and *ought not be* something to be found *in* the framework. Moreover, with no commitment to an over-all theory of social change, I can propose a framework for a particular time span and for a particular area without feeling bound to warrant its utility at all other times and in all other places. The place my framework for social history is built for is England, the time for which the framework is built is from around 1000 to 1750.

The period of English history we are considering then is about a century short of the time span for which the Marxist dialect was primarily constructed. Moreover we are going to start with a solid fact as Marx did. Indeed we are going to start with the very same fact

that Marx started with: around the year 1000 the dominant social class in the Western world was composed of men who derived their income and indirectly their power from the possession of land and of enforceable claims on the labor and income of the men who worked the land. The second fact is very like Marx's second fact: from the year 1000 up to within a hundred years of Marx's prime the Western world underwent vast changes, economic, political, social, religious, intellectual. Our third fact, however, is rather different from Marx's: one century before Marx's time in the country most advanced economically, England, the dominant social class still derived most of its income and power from the possession of large amounts of land.

This third fact is the one most likely to arouse controversy, and within the compass of this paper adequate evidence to establish it cannot be offered. Indeed it is not easy to state precisely the conditions of proof of the statement that one class or another is dominant. For the case in point I will mention only one special index, the game laws. In the eighteenth century the operation of these laws provided the landed gentry with a charter of hunting privilege that effectively excluded all other classes. This privilege differed from others enjoyed by other groups in that it did not derive its justification from any benefit, real or imagined, that the grant or exercise of the privilege might confer on the country. It was a privilege conferred by a ruling class on itself merely as a perquisite of ruling. It is not without significance that by Marx's day the middle-class avalanche in England had demolished the structure of the eighteenth-century game laws along with the rule of the landed of which those laws were a symbol.

Of course, if one accepts this third fact as accurate, the whole perspective of social history shifts away from the customary Marxist pattern. That pattern, you will recall, is bound up with the thesis that the vast transformations of seven or eight centuries are wholly intelligible only if viewed as consequences of the rise of the bourgeoisie and the decline of the landed aristocracy. If in fact the aristocracy did continually decline during the period in question then the hypothesis would merit consideration; if not, not.

But if we take the word *decline* in any common sense then the landed aristocracy of England did *not* continually decline between 950 and 1750. After the Norman conquest in the eleventh century, England acquired a fully systematic feudal organization with the landed aristocracy, of course, at the top. The military tenure founda-

tions of feudalism crumbled in the next two centuries, eroded by the increased circulation of money. Commercial farming began to play a significant part in the rural economy. Alongside the rural economy a reasonably consequential urban economy appeared. The local laws under which English communities had hitherto been ruled were shunted toward obsolescence by the law of the king's courts, the common law of England. The waves of the renaissance of the twelfth century lapped against England's shores, and systematic learning acquired a measure of economic, political, and social value for him who possessed it. Still the landed aristocracy sat at the top of the heap. The secular boom of the thirteenth century gave way to the secular bust of the fourteenth. English trade shrank and so did commercial farming. After the 1350's the big operator whether in agriculture or finance was up against it. The efficient, hard-headed, high-handed central administration that England had known from the days of Henry II to those of Edward I gradually fell into decay. England's assembly of estates grew out of its infancy and became Parliament. By the scheme of commissions of array, identure, and livery the power of the feudal group was replaced by that of "goodlordship," a new kind of clientage that has been described as "bastard feudalism." In any case, at the top of the illegitimate heap there was still a more or less legitimate landed aristocracy.

The Tudors put an end to the violence of the waning Middle Ages, and private armies were no longer *de rigueur* in the best circles. The Tudors also broke with the Roman Church and threw rich nourishing packets of monastic land onto the market. The vogue of humanism put an unheard-of premium on book learning. The House of Lords no longer dominated the House of Commons. But as lord lieutenants, deputy lieutenants, justices of the peace, and outrageously enough after all, as representatives of the towns of the "rising bourgeoisie" in the House of Commons, the landed aristocracy still straddled the heap, the ruling class of England. I will not pursue the ponderous progress of the aristocracy any further down the corridor of the centuries. What we are dealing with is not a continuously declining class, but a class that rather successfully maintained its power during all the vicissitudes of three quarters of a millennium during which almost everything else changed quite, quite drastically. Of course the landed class itself changed drastically too. If it had not done so it could not have maintained its power. It is a far cry from Geoffrey de Mandeville's adulterine castles in the reign of King Stephen to the pleasant

country mansions of the Whig oligarchs in the reign of George III. Nevertheless a continuity is there and it is substantial. In the history of the English aristocracy from 1066 on, there are bends but there is no break, no solution in the continuity of its existence. Moreover, the roots of the power of Stephen's bad barons and of George's arrogant oligarchs were the same; they lay in the main in the extensive possession of land. But while the roots stood fast, that which grew from them underwent not one but several metamorphoses, fitting itself into societies such as Geoffrey and Stephen never dreamed of. The problem then is one of adaptation. Through seven-odd centuries the English aristocracy deployed their landed wealth in such a way as to retain power in their hands; but the way they deployed that wealth changed as the world they lived in changed around them. How then did they do it?

It seems to me that if historians were systematically to pursue that question down through the centuries they might learn a good deal about the social history of England. But specifically how should historians go about exploring the problem of aristocratic domination and its metamorphoses? To the question of technique there is obviously no one answer. So I will only propose one possible approach, the value of which could be tested only by trying it in practice.

I believe some biologists suggest that the key to the understanding of the nature of health is the study of disease, that the examination of the abnormal provides the clue to the normal. Now the different modes of organizing society seem to be subject each to its own peculiar disease. The characteristic malaise of aristocratic supremacy in English society was what English social diagnosticians were to recognize and describe as "the overmighty subject." The disease of course antedates its name, and looking all the way back before the Norman conquest we can discern its etiology in the case of Earl Godwin of Kent, the father of Harold whom William the Conqueror defeated. As a rough approximation, overmighty subjects were men who in one way or another had acquired enough power in one form or another to be, or to be regarded as, a threat to the official custodians of public authority.

It seems to me that if we were to examine the story of the overmighty subject we might learn a great deal about the way the English magnate transformed his landed wealth into power by successive adaptations to emergent circumstances. Beginning with Earl Godwin in the eleventh century we might follow with Geoffrey de Mandeville in the twelfth, Simon de Montfort in the thirteenth, Thomas of Lancaster in the fourteenth, the king-making Earl of Warwick

in the fifteenth, question mark for the sixteenth, a Puritan aristocratic connection in the seventeenth, the Duke of Newcastle in the eighteenth.[1] Perhaps such a series might conclude with a sketch of some actual nineteenth-century equivalent of Anthony Trollope's Duke of Omnium. Then we should be able to understand in detail why the greatest of Victorian magnates could not play a role like predecessors of theirs had played in previous centuries.

When we seek what underlay the excessive power wielded by these overmighty subjects we discover that it was in all cases similar; all of them used their lands as a base from which to move to a position of command or control over men. Ultimately it is only by means of such a transformation that wealth can become the basis and instrument of domination; directly men, not money or land, are the source of power. Precisely what kind of men, precisely how they were organized, how the "boss" built his "machine," how he used it, to what collective sentiments (if any) he appealed to gain support and to vindicate his conduct, all these questions and many more would be the object of investigation. As such investigation proceeded we might learn something of the condition of society during the career of each overmighty subject, for in each instance it is the general organization, the habits, the institutions, the state and development of the natural and human resources of the society in which they operate that condition the activities, limit the success, and determine the failure of the overmighty subjects. That Geoffrey de Mandeville supported his position on a string of strategically situated Essex castles, that the Puritan connection aimed at and won initiative in the House of Commons, that the Duke of Newcastle made himself the almost indispensable man by the busy and judicious management of a tidy cache of rotten and pocket boroughs—this tells us something about Geoffrey, the Puritan connection, and the Duke; but it also tells us something about the nature of the societies in which these particular courses of action provided the lines of access to power.

As I observed before there are surely other ways to get answers to the question "How did the landed adapt themselves to changing conditions in such a way as to retain a dominant position in English society during seven centuries of change?" I should like however to point out two distinctive merits that inhere in approaching the problem through studying the overmighty subject.

First a simple matter of fact. Reporters like bad news better than

[1] The immediately felt need to put "question mark for the sixteenth, a Puritan aristocratic connection for the seventeenth" suggests at the outset certain peculiarities of those two centuries.

good news and purvey it more abundantly; and this is true whether the reporter is a monastic chronicler or an eighteenth-century gossip. Now most overmighty subjects are bad news indeed; one way or another they make a lot of trouble. And consequently we can know a good bit more about them than we can about the less outrageous and therefore less notorious and less amply reported members of their class. The overmighty subjects are easier to document than most of their contemporaries.

The second point is connected with the first. Because we can know a good bit about most of these overmighty subjects we can tell a pretty coherent story about most of them. And telling a story is a good thing for a historian to do. Many of us have got so preoccupied with analysis and argumentation that we are in danger of forgetting how to tell a story and even of forgetting that telling a story is the historians' real business after all. Ultimately we do our best for the succession of human actions in time, which is history, when we tell the most intelligent story we can about it, or about that part of it that we know. So telling the stories of the overmighty subjects might be a reasonably satisfactory way to deal with eight centuries of English social history.

How should such work be done? It seems to me it should be co-operative. I am not beset by a consuming passion for co-operation of a highly organized sort in the field of scholarship. At best co-operative enterprises are the obverse and the confession of our individual limitations and incapacities; and they have often provided circuitous routes to a general mediocrity quite easily and directly attainable without the inconveniences that they involve. In the particular case in point, however, co-operation seems to be the lesser of two evils. The kind of easy familiarity with an era that the man who has devoted a lifetime to studying it enjoys is hard to come by. The amateur will go astray for lack of that firm grasp on the obvious which is the principal asset of the expert. It might be well to have an expert for the selected overmighty subject of each century. But the man dealing with the overmighty subject of any given century after the eleventh and before the nineteenth would have to keep in touch with the men working with the preceding and following centuries. Perhaps it might also be well to have the eleventh-century man keep in close touch with the nineteenth-century man in a chaste academic emulation of *la ronde*. Such a procedure would keep at least two of the collaborators aware of the social distance between the tenth century and the nineteenth.

So much for the particular advantages of approaching the study of the durability and adaptations of the landed class through the adventures and misadventures of the overmighty. But I should like to point out certain general advantages of a vague framework of the kind I have proposed. All historians I am sure have at one time or another run into the "rank-or-file" dilemma. "File" history is concerned with what Spengler called the *nacheinanderung,* the "after-one-anotherness," of events. It deals with events in temporal sequence. It gives us our political histories of this place, and constitutional histories of that place. "Rank" history is concerned with what Spengler calls the *nebeneinanderung* of events. It deals with the relation of more or less simultaneous events as manifestations of the temper of an age, or, as the anthropologists would have it, the pattern of culture. It gives our era histories—the Renaissance, the Age of Enlightenment. The "rank-or-file" dilemma is that while both kinds of history are important we can only write one at a time. It is as if Heisenberg's indeterminacy principle were transferred to history. If we deal vigorously with a chain of events in time we lose track of the connectedness of each part of the chain with the other happenings contemporary with it. If we deal with the interrelations of events in a particular time we lose track of the connections of each particular event with its antecedents and consequences.

I am quite sure that if there were any wholly satisfactory way to attain a true marriage of rank history to file history, better men than I would have found it long ago. I am afraid that we will have to settle for a good bit less than a true marriage—a fairly frequent if somewhat casual liaison perhaps. Now it seems to me that for the accomplishment of such a liaison the framework for social history that I have outlined has rather good possibilities. It follows a chain of circumstances, the destinies of the landed, down the corridors of time. Thus in one of its aspects it is good "file" history. But at each major change in the *modus operandi* of the landed in organizing their power structure we would be compelled to halt and to relate that change to the conditions and the characteristics of the whole society to which it was an adaptation. This procedure would help minimize the worst defects of "file" history, its tendency to overlook those forces that exercise a short-run effect on the chain of development under consideration. Thus in the sixteenth century, the period of history that has most preoccupied me, humanism, the New Monarchy, the Reformation, the Puritanism, the long Tudor–early Stuart peace, and above

all the problem of maintaining a harmonious balance between court interests and country interests—all demanded certain kinds of adaptation on the part of the landed. By the end of the seventeenth century these forces were pretty well played out; at least they were not a serious concern of the landed magnates as such. In most file history writing, such short-run complexes receive rather cavalier treatment. In economic histories, for example, Puritanism is usually dismissed with a nod, or more often a grimace, at Max Weber. Humanism and court and country get even shorter shrift. The framework above proposed should prevent this kind of curt dismissal, and act as a prophylactic against remarks about how *in the long run* such matters did not affect the *basic* realities. It would enable us to observe how the magnates' reaction to short-run realities became a part of the historical character of that class, and were carried right along with it on its trip down the long run.

Nor does the usefulness of the proposed framework end with its capacity to provide a partial resolution of the rank-and-file dilemma and to elucidate the adaptation maneuvers of a single social class. The study of adaptation among living things throws light on the transformations both of the species under investigation, *and* of its environment. Some species adapt to change in the environment by destroying other species or by forcing on them radical changes in the pattern of their lives. This is as much as to say that some species have adapted to changes in their environment by forcing further changes on their environment. What is true of living things is even more frequently true of human groups and especially of human groups with a dominant position in society such as the landed enjoyed. Thus sometimes as we follow the adaptive actions of the landed we will be able to observe how they impose a new pattern on other sectors of society. Consider the loose-knit but far-reaching fabric of clientage that the fifteenth-century landed magnates organized under the name of "goodlordship." It seems to have been the response of the magnates to the decline of their estate revenues and the almost simultaneous enfeeblement of the royal government. But the response itself had wide and deep ramifications. They are manifest, for example, in the advice of a lesser landed gentleman: "Get yourself lordship, for it is the law and the prophets." It shows again when old established merchant families like the Celys cast about for a lord to protect their interests. Once more it appears in the reform plans of an eminent judge. The twofold aim of Sir John Fortescue's scheme of reform is to provide the crown

with revenues greater than those of any magnate, and to remove the magnates themselves from their dominant position in the royal council. They had used their strategic situation in the council to provide their own household officials with government jobs, and had thus turned the royal service into a supply base for the maintenance of their clientage organizations. Thus the adaptive maneuvers of the magnates had imposed alterations on the conduct of trade, on central administration, and on the relations of the landed classes. These are but a few examples of the way fifteenth-century society had to reorient itself in consequence of the course of action pursued by the magnates to meet a crisis in their own affairs. They lie out on the surface of history where the most casual explorer can see them. To make out fully the underlying shifts in the formations of society of which these instances are but the surface outcrops would be difficult work. Clearly this paper is not the place for it. My aim is simply to indicate how a relatively simple framework can be used to open up and deal with some of the most intricate problems of social history.

A major merit of the conception of a framework for social history set forth above is that one cannot make preposterous claims for it. One cannot possibly insist that it is the only viable framework for all social history, since it is explicitly a framework only for a specified time and place. One cannot even claim that it is the only viable framework for the time and place to which it is pertinent. One cannot indeed claim that in working out its central problem one will exhaust the data of English social history. There will remain important aspects of English social history so far out on the periphery of the question of how the aristocracy stayed on top that they will never get built into it. For such data other frameworks would have to be developed and the hope entertained that the structures erected with their help could be brought into intelligible relation with the one I have proposed.

There is another thing to be said for using the question "How did the aristocracy do it?" as a framework for English social history from the eleventh to the eighteenth century. It is after all a *question.* It does not offer an explanation; it seeks one. It involves a minimum of direction about what to find and a maximum of openness to whatever answers investigation brings to light. To those who regard history as a disordered scrap heap which exists only to be scavenged for usable parts by the constructors of unavowed but predetermined eschatologies, this openness will scarcely seem desirable. Working historians, however, who in their slovenly way had rather arrive at conclusions than

start with them, may see some small virtue in a work plan that places the conclusion at the end rather than at the beginning of an investigation.

Then, too, although our question does not enfold the whole of social history, an attempt to answer it *will* involve placing a very considerable part of English social history and a great deal of the rest of the history of England in an intelligible and coherent pattern about a center socioeconomic in character. Finally, since the whole of Western civilization was socially in much the same condition as England in the tenth century, and since the destinies of other aristocracies were quite different from that of the English, it offers an opening for another kind of comparative study—the study in which the differentia are not only of time but of place—that remains one of the most promising and least traversed avenues of historical investigation.

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DISCUSSION

MILDRED CAMPBELL: It falls to me to comment on Mr. Jack Hexter's paper entitled, "New Framework for Social History." I wish, first of all, to say how nice it is to meet with a scholar who believes that scholarship is something to enjoy as well as to labor over; and one who is not afraid to stick his neck out, not so much in the belief that his ideas are the only ones, as in the hope that others weighing and evaluating them will likewise be moved to suggest new approaches.

With many of these ideas, and with his general approach, I find myself in agreement. Perhaps for the sake of the discussion, a pro-Marxian should have been selected as commentator; for I agree with Mr. Hexter's criticism of Marx's strait jacket pattern and the undue influence it has had on many historians; though in all fairness, since earlier historians almost completely neglected economic factors, I think we must thank Karl Marx for bringing them to the fore. I do believe, however, that an *a priori,* metaphysical, and unicausal approach is bound to lead to unsound conclusions; and that we badly need, especially in the field of social history, more of the empirical, multicausal approach. Like him, I prefer a plan "that places the conclusion at the end rather than at the beginning of an investigation." I share his skepticism of the possibility of an over-all theory of social change; and I am certainly all for historians, or anyone else, "prying into matters that interest them." I also believe that it is the duty of the historians to tell a story well. Whether we need to be quite as "haphazard" as we sometimes are, I am less certain.

So much then for what might be termed our "philosophy," in which it is apparent we are chiefly in agreement. In Mr. Hexter's new approach, and the technique which he suggests for its operation, I also find much of interest and much to commend, though I do not entirely agree with him, and have two or three questions to raise. In fact, it seems to me that Mr. Hexter of the second part does not always agree with Mr. Hexter of the first part. But, indeed, it all sounded so plausible to me at first in terms of its excellent presentation that it was not until I came to analyze carefully its basic assumptions and to think in terms of what they would lead to that I discovered my own disagreement.

The first query I should like to raise has to do with that rather basic matter that everyone who deals with history in terms of social classes must, it seems to me, grapple with; namely, the definition of terms. What, specifically does Mr. Hexter mean, and whom does he include in the term "aristocracy"? Obviously he equates it with a ruling class or group; and it is pretty clear from the direction of his argument that it is the landed class he has in mind. But even if aristocracy is taken to mean landed men only, there is still the problem of what landed men are to be included. Does aristocracy in the

earlier period, for instance, refer only to earls, lords, and barons at the top of the feudal ladder, or does it also include the "true and parfait knight" at the bottom? Or in the later part of the selected time span, is it the great gentlemen only, the Duke of This or That, with estates scattered in various parts of England; or the powerful gentry, more localized in setting and activities yet with horizons at least countywide, and from Elizabeth's time on reaching often as far as Westminster? And does it include also the minor or lesser gentry of whom there were many in England?

The "overmighty subjects" chosen later by Mr. Hexter appear to be from the first two of the above groups; yet all three groups, according to contemporaries who dealt with the question of social structure, were members of the privileged classes possessing that somewhat elusive quality of "gentility,"—elusive to define, but marked by such outward labels as the right to a coat of arms, and such legal privileges as the game laws, mentioned by Mr. Hexter. Who is included would not make so much difference were it not that Mr. Hexter pointed out, and I think rightly so, that this type of study should throw a great deal of light on the society of the period. Yet in wealth, associations, activities, and mental outlook, there was a world of difference in these groups, so much so in fact, that many conclusions respecting those matters that were valid for one of them would not be for the others. Something more in the way of definition would, I think, be desirable.

The second query that I should like to raise has to do with what Mr. Hexter lists as the "third fact" in the platform on which he is to erect his experiment; namely, that a century before Marx's time in England, the "dominant social class still derived [1] its income and power from the possession of large amounts of land." Now is that a statement of fact or an assumption? I incline to consider it the latter. Even as an assumption, since it is basic to the experiment, it will bear examining. Had Mr. Hexter said that the "dominant social class" was the landed group, I should have had no quarrel with him. Individuals who arrived at wealth and power, by whatever means, tended to buy land in order to acquire for themselves, or at least for their children, "county status" and all that went with it. But to say without any qualifications that this "dominant social class" still derived *both its income and its power* from the possession of land is, I think, too broad a statement. In one of its aspects, we are thrown squarely in the face of the Tawney–Trevor Roper controversy, though it applies to a briefer period. That controversy, I may say; for it is pertinent here, has always seemed to me to be a matter of *supplementary* rather than *conflicting* principles. Mr. Trevor Roper does not, it seems to me, refute the evidence in which Professor Tawney saw the Tudor gentry rising by means of the commercialization of land. He simply turns up other and additional evidence

[1] The addition of the qualifying phrase "most of" (not in the script which I saw) modifies but does not invalidate my criticism.

regarding those who rose from lucrative offices. The relation to the present subject is, I think, obvious. I certainly agree with Mr. Hexter that land was a source, with many a major source, of the wealth that helped to continue the aristocracy in the position of a ruling class. But to recognize no other source of wealth, and no other source of power is surely to omit very important parts of the story. Many of those very changes which Mr. Hexter enumerated opened up new opportunities for a rise of mercantile and smaller landed men into the aristocracy, and also for younger sons of landed families already established, cheated by the practice of primogeniture, to build up and maintain their fortunes through business interests as well as through the traditional careers of the church and the professions. For it was by all these means and not by land alone or by offices alone, that the landed aristocracy was augmented. And is it to be thought that landed families, either ancient or newly risen, with investments in Cotswold, East Anglia, or Yorkshire wool;[2] north country coal, Sussex iron, or later, the Staffordshire potteries—to name only a few fields for industrial investment—did not, as members of the aristocracy, continue those affiliations; or that landed families with their roots in trade or with investments in mercantile or colonial ventures did not use the wealth and power gained thereby to maintain themselves as the dominant social class?

Doesn't a framework that ignores these things, and that has as one of its chief planks (whether it is called a fact or a basic assumption) the assertion that the aristocracy in England a century before Marx's time still "derived its income and power from the possession of large amounts of land" set off the investigation of the "overmighty subject" on a course already too predetermined to fit in with Mr. Hexter's earlier philosophy?

Let us turn now to the choice of the "overmighty subject" as a center of study, and to the grounds on which it is to be pursued. It is not—this biographical approach—an unassailable choice. Mr. Hexter does not claim that it is. It would not be my first choice for a center of study within this framework. Yet I confess that I find it an intriguing idea, and one from which much might be learned, though possibly with certain modifications to the plan as Mr. Hexter has conceived it.

In introducing the experiment of the "overmighty subject," he brings forward another basic assumption regarding the source of wealth that has not been mentioned earlier. "Directly," he says (and *directly* is apparently used to mean *immediately,* not ultimately), "Directly men, not money or land, are the source of power." And many things are suggested which might be learned about the society of each period by a study of the "overmighty subject's" exercise of control over men, that is, what kind of men were controlled, how the Boss built and used his machine, to what collective sentiment (if any) he appealed for support, and the like. Surely these are things that

[2] *Wool* here is used to include both the wool trade and the cloth industry.

we should like to know, and things for which such a study might furnish a key, except that Mr. Hexter throws us back on that earlier assumption which places the source of the income and power of the aristocracy in land. By examining "the story of the 'overmighty subject'," he says, we shall learn how "the English magnate transformed his landed wealth into power"; for wealth, he says, must be transformed in order to become "the basis and instrument of domination."

Now are we to assume that wealth alone is the source of the control exercised by the "overmighty subject" over men? And if so, that such wealth was derived only from land? I can't believe that Mr. Hexter means to be as solely "economic factorish" as that. But he does not mention the possibility of looking into any other source. He talks only of our examining how the "overmighty subject" transformed his landed wealth into power and control. He says that he finds all the men he selected using land as a base for wealth and transforming it into power. Granted that he is correct in this, was their wealth the only source of power with all of them? Did the Puritanism, for instance, of the Puritan gentry of the seventeenth century have nothing to do with their overmightiness? One would think it did to hear their contemporaries talk! And suppose wealth to have been the source of power and land the source of the wealth of *these eight men,* would it necessarily be true of the next eight chosen? Are eight examples over eight centuries a fair sampling? That seems almost too much "haphazardness" even for us historians to indulge in. Are offices, preferment, religion, military prowess, and sheer human personality as sources of power not to be taken into account? What would one do with such men as Thomas Becket, Thomas Cromwell, Sir Edward Coke, Archbishop Laud, Oliver Cromwell, and Chatham? What of those Long Parliament men whom Mary Keeler found with so many irons in the fire? And what of such men as Lionel Cranford, the Earl of Middlesex, and those powerful East Indian "nabobs" under George III? These were all members of the English aristocracy; and all, at some time or other, members of the landed aristocracy. But to look only at the way they used their land as a base for wealth and transformed it into power, would surely make it a one-sided story. Even if other sources are to be included (though Mr. Hexter does not suggest including any), would there not be danger "of putting things that the theory won't explain into the limbo of the unimportant"? Yet that is why Mr. Hexter doesn't like Marx. And wouldn't it be too much a matter of finding the answer *in* the framework; just what we said we wouldn't do.

Should we then throw overboard the idea of the "almighty subject"? Not at all! After all, our ultimate purpose was to find out whether or not the aristocracy were still the dominant class as late as 1750, and if they had not declined through the ages, why they had not. Maybe a study of the "overmighty subject" would alone not answer those questions (Mr. Hexter did not

claim this as the sole approach). Certainly it would throw some light upon them. But why not increase the number of "overmighty subjects" to be studied? This is to be a co-operative enterprise. Let each specialist (or group of specialists) select the men of his particular century who best represent the overmighty subjects of their time. And then why do we not start with the simple question, "Why were these people regarded as 'overmighty subjects' by their contemporaries? And what was the source of their power over men that kept them and their kind in a position of dominance?" Was it chiefly their wealth? If so, was their wealth derived chiefly from their land, or from varied sources? And did other factors, possibly noneconomic factors, enter in? Do we, after all, have to start with a framework, a part of which seems to place the conclusion at the beginning rather than at the end of the investigation?

I believe that a study based upon the "overmighty subject" with these modifications might prove useful. It would help us to find out more about the dominant class, and how it gained and retained its power; to know more about the extent to which land was the source of its power; and to what extent other factors entered in. And at the same time we might reach some of those valuable by-products mentioned by Mr. Hexter regarding the general organization of society at different periods, its habits and institutions, what operated to condition the activities, limit the success, and determine the failure of its participants, whether overmighty or otherwise—those matters so dear to the heart of the social historian.

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